LG

website:http://biz.LGservice.com
e-mail:http://www.LGEservice.com/techsup.html

LCD TV
SERVICE MANUAL

CHASSIS : CL-81

MODEL : 15LC1RB-MG / 20LC1RB-MG

CAUTION
BEFORE SERVICING THE CHASSIS,
READ THE SAFETY PRECAUTIONS IN THIS MANUAL.



CONTENTS

SAFETY PRECAUTIONS

IMPORTANT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These parts are identified by ⚠ in the Schematic Diagram and Replacement Parts List.
It is essential that these special safety parts should be replaced with the same components as recommended in this manual to prevent Shock, Fire, or other Hazards.
Do not modify the original design without permission of manufacturer.

General Guidance

An **isolation Transformer should always be used** during the servicing of a receiver whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks.

It will also protect the receiver and it's components from being damaged by accidental shorts of the circuitry that may be inadvertently introduced during the service operation.

If any fuse (or Fusible Resistor) in this TV receiver is blown, replace it with the specified.

When replacing a high wattage resistor (Oxide Metal Film Resistor, over 1W), keep the resistor 10mm away from PCB.

Keep wires away from high voltage or high temperature parts.

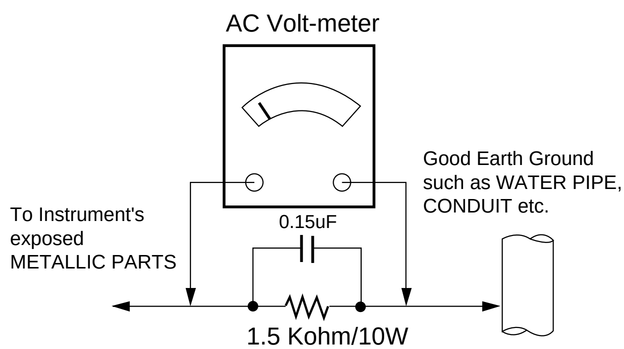
Before returning the receiver to the customer,

always perform an **AC leakage current check** on the exposed metallic parts of the cabinet, such as antennas, terminals, etc., to be sure the set is safe to operate without damage of electrical shock.

Leakage Current Cold Check(Antenna Cold Check)
With the instrument AC plug removed from AC source, connect an electrical jumper across the two AC plug prongs. Place the AC switch in the on position, connect one lead of ohm-meter to the AC plug prongs tied together and touch other ohm-meter lead in turn to each exposed metallic parts such as antenna terminals, phone jacks, etc.
If the exposed metallic part has a return path to the chassis, the measured resistance should be between 1MΩ and 5.2MΩ.
When the exposed metal has no return path to the chassis the reading must be infinite.
An other abnormality exists that must be corrected before the receiver is returned to the customer.

Leakage Current Hot Check (See below Figure)
Plug the AC cord directly into the AC outlet.
Do not use a line Isolation Transformer during this check.
Connect 1.5K/10watt resistor in parallel with a 0.15uF capacitor between a known good earth ground (Water Pipe, Conduit, etc.) and the exposed metallic parts.
Measure the AC voltage across the resistor using AC voltmeter with 1000 ohms/volt or more sensitivity.
Reverse plug the AC cord into the AC outlet and repeat AC voltage measurements for each exposed metallic part. Any voltage measured must not exceed 0.75 volt RMS which is corresponds to 0.5mA.
In case any measurement is out of the limits specified, there is possibility of shock hazard and the set must be checked and repaired before it is returned to the customer.

Leakage Current Hot Check circuit



SERVICING PRECAUTIONS

CAUTION: Before servicing receivers covered by this service manual and its supplements and addenda, read and follow the *SAFETY PRECAUTIONS* on page 3 of this publication.

NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 3 of this publication, always follow the safety precautions. Remember: Safety First.

General Servicing Precautions

1. Always unplug the receiver AC power cord from the AC power source before;
   a. Removing or reinstalling any component, circuit board module or any other receiver assembly.
   b. Disconnecting or reconnecting any receiver electrical plug or other electrical connection.
   c. Connecting a test substitute in parallel with an electrolytic capacitor in the receiver.
   CAUTION: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.

2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc) equipped with a suitable high voltage probe.
   Do not test high voltage by "drawing an arc".
3. Do not spray chemicals on or near this receiver or any of its assemblies.
4. Unless specified otherwise in this service manual, clean electrical contacts only by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable non-abrasive applicator; 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength)
   CAUTION: This is a flammable mixture.
   Unless specified otherwise in this service manual, lubrication of contacts in not required.
5. Do not defeat any plug/socket B+ voltage interlocks with which receivers covered by this service manual might be equipped.
6. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
7. Always connect the test receiver ground lead to the receiver chassis ground before connecting the test receiver positive lead.
   Always remove the test receiver ground lead last.
8. *Use with this receiver only the test fixtures specified in this service manual.*
   CAUTION: Do not connect the test fixture ground strap to any heat sink in this receiver.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid-state) devices can be damaged easily by static electricity. Such components commonly are called *Electrostatically Sensitive (ES) Devices.* Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed to prevent potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range or 500°F to 600°F.
2. Use an appropriate gauge of RMA resin-core solder composed of 60 parts tin/40 parts lead.
3. Keep the soldering iron tip clean and well tinned.
4. Thoroughly clean the surfaces to be soldered. Use a mall wire-bristle (0.5 inch, or 1.25cm) brush with a metal handle.
   Do not use freon-propelled spray-on cleaners.
5. Use the following unsoldering technique
   a. Allow the soldering iron tip to reach normal temperature. (500°F to 600°F)
   b. Heat the component lead until the solder melts.
   c. Quickly draw the melted solder with an anti-static, suction-type solder removal device or with solder braid.
   CAUTION: Work quickly to avoid overheating the circuitboard printed foil.
6. Use the following soldering technique.
   a. Allow the soldering iron tip to reach a normal temperature (500°F to 600°F)
   b. First, hold the soldering iron tip and solder the strand against the component lead until the solder melts.
   c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.
   CAUTION: Work quickly to avoid overheating the circuit board printed foil.
   d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.

IC Remove/Replacement

Some chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 and 6 above.

Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.
2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

Replacement

1. Carefully insert the replacement IC in the circuit board.
2. Carefully bend each IC lead against the circuit foil pad and solder it.
3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to the areas).

"Small-Signal" Discrete Transistor Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.
2. Bend into a "U" shape the end of each of three leads remaining on the circuit board.
3. Bend into a "U" shape the replacement transistor leads.
4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal to metal contact then solder each connection.

Power Output, Transistor Device Removal/Replacement

1. Heat and remove all solder from around the transistor leads.
2. Remove the heat sink mounting screw (if so equipped).
3. Carefully remove the transistor from the heat sink of the circuit board.
4. Insert new transistor in the circuit board.
5. Solder each transistor lead, and clip off excess lead.
6. Replace heat sink.

Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.
2. Bend the two remaining leads perpendicular y to the circuit board.
3. Observing diode polarity, wrap each lead of the new diode around the corresponding lead on the circuit board.
4. Securely crimp each connection and solder it.
5. Inspect (on the circuit board copper side) the solder joints of the two "original" leads. If they are not shiny, reheat them and if necessary, apply additional solder.

Fuse and Conventional Resistor Removal/Replacement

1. Clip each fuse or resistor lead at top of the circuit board hollow stake.
2. Securely crimp the leads of replacement component around notch at stake top.
3. Solder the connections.
   CAUTION: Maintain original spacing between the replaced component and adjacent components and the circuit board to prevent excessive component temperatures.

Circuit Board Foil Repair

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board causing the foil to separate from or "lift-off" the board. The following guidelines and procedures should be followed whenever this condition is encountered.

At IC Connections

To repair a defective copper pattern at IC connections use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections).

1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary).
2. carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.
3. Bend a small "U" in one end of a small gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.
4. Route the jumper wire along the path of the out-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area and clip off any excess jumper wire.

At Other Connections

Use the following technique to repair the defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.

1. Remove the defective copper pattern with a sharp knife. Remove at least 1/4 inch of copper, to ensure that a hazardous condition will not exist if the jumper wire opens.
2. Trace along the copper pattern from both sides of the pattern break and locate the nearest component that is directly connected to the affected copper pattern.
3. Connect insulated 20-gauge jumper wire from the lead of the nearest component on one side of the pattern break to the lead of the nearest component on the other side.
   Carefully crimp and solder the connections.
   CAUTION: Be sure the insulated jumper wire is dressed so the it does not touch components or sharp edges.

DISASSEMBLY



#1



#2 Detached stand assy (Remove the screws)



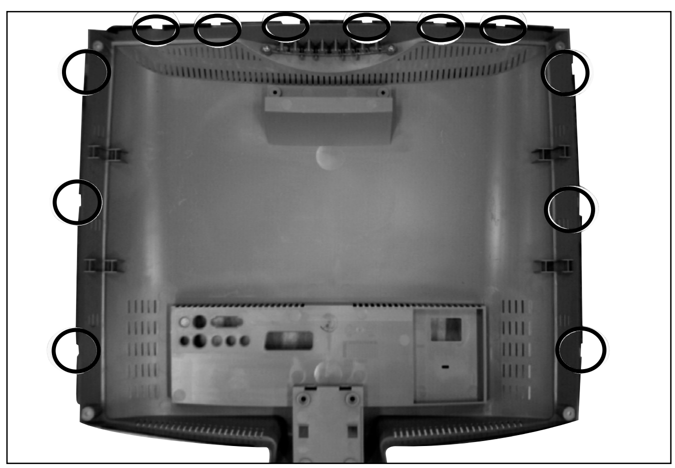
#3 Disassembly stand assy



#4 Detached Backcover (Remove the screw)



#5 Open the Backcover's latch with jig



#6 Unlock latch between Cabinet and Backcover

SPECIFICATION

NOTE : Specifications and others are subject to change without notice for improvement.

1. Application range

This specification is applied to CL-81 chassis.

2. Requirement for Test

Testing for standard of each part must be followed in below condition.

(1) Temperature: 25°C ± 2°C
(2) Humidity: 65% ± 10%
(3) Power: Standard input voltage (AC 100-240V, 50/60Hz)
(4) Measurement must be performed after heat-run more than 30min.
(5) Adjusting standard for this chassis is followed a special standard.

3.General Specification

3-1. 15LC1R

No.	Item		Specification	Remark
1	Type		TFT Color LCD Module	LPL
	ActiveDisplay Area		15.0 inches(380.16mm) diagonal(Aspect 4:3)	
	Pixel Pitch [mm]		0.297mm(H)x0.297mm(V)xRGB	
	Electrical Interface		LVDS	
	Color Depth		6BIT, 16,777,216 colors	
	Size [mm]		332.8(H) x 262.2(V) x 18(D)	
	Surface Treatment		Anti-Glare(HAZE 3%), Hard Coating(3H)	
	Operating Mode		Normally Black	
	Back light Unit		4 CCFL(4 lamps)	
	R/T	Typ.	R.T.:5ms + F.T.:11ms(Typ)	

3-2. 20LC1R

No.	Item		Specification	Remark
1	Type		TFT Color LCD Module	LPL
	ActiveDisplay Area		20.1 inches(510.54mm) diagonal	
	Pixel Pitch [mm]		0.2125mm(H)x0.6375mm(V)xRGB	
	Electrical Interface		TTL	
	Color Depth		8BIT, 16,777,216 colors	
	Size [mm]		432(H) x 331.5(V) x 25(D)	
	Surface Treatment		Anti-Glare, Hard Coating(3H)	
	Operating Mode		Normally Black	
	Back light Unit		6 CCFL(6 lamps)	
	R/T	Typ.	25ms(R.T.:12ms + F.T.:13ms)	

4. Mechanical Specification

No.	Item		Content			Remark
1	Product Dimension		15LC1R/20LC1R			
			Width(W)	Lengh(D)	Height(H)	
		Before Packing	377.6/492.4	242.8/272.8	394.5/483.3	
		After Packing	433/574.0	143/225.0	442/627.0	
2	Product Weight	Only SET	5.6Kg/8.7Kg			
		With BOX	7.7Kg/11.1Kg			

5. Reference table-Function

No.	Item	Specification	Remark
1	Teletext	TOP, FLOF	NO
2	REMOCON	NEC Code	NTSC
3	AV Input	1	Rear
4	S-Video Input	1	Rear
5	Component Input	1	Rear
6	PERI TV Connector	Full SCART : 0	NO
7	Ear-phone output	1	Rear
8	2 Carrier Stereo	X	
9	NICAM Stereo	X	
10	2 Carrier Daul	X	
11	NICAM Daul	X	
12	DW(Double Window) Mode	X	
13	MW(Multi Window) Mode	X	
14	Film Mode	X	
15	Noise Reduction	X	
16	Progressive Scan	O	
17	Motion Detection	X	
18	SRS WOW	X	
19	Swivel Speaker	X	
20	EZ-pip	X	
21	ARC	X	
22	DRP	X	
23	DCDI	X	
24	HDCP	X	

6.Optical Character

6-1. 15LC1R

No.	Item	Specification		Min	Typ	Max	Remark
1	Viewing Angle <CR≥10>	R/L,		55/55	65/65		
		U/D		40/50	45/55		
2	Luminance	Luminance(cd/m^2)		300	400		
		Variation				1.3	
3	Contrast Ratio	CR		300	400		All White/All Black
4	CIE Color Coordinates	WHITE (Normal)	Wx	0.253	0.283	0.313	In PC input
			Wy	0.268	0.298	0.328	Contrast 100/Brightness 50
		WHITE (Warm)	Wx	0.283	0.313	0.343	In AV Input PSM : Dynamic White (100 IRE)
			Wy	0.299	0.329	0.359	
		WHITE (Normal)	Wx	0.253	0.283	0.313	
			Wy	0.268	0.298	0.328	
		WHITE (Cool)	Wx	0.244	0.274	0.304	
			Wy	0.256	0.286	0.316	

6-2. 20LC1R

No.	Item	Specification					Remark
				Min	Typ	Max	
1	Viewing Angle <CR≥10>	R/L, U/D		85/85 85/85	88/88 88/88		
2	Luminance	Luminance(cd/㎡)		300	40		
		Variation				1.3	
3	Contrast Ratio	CR		250	350		All White/All Black
4	CIE Color Coordinates	WHITE (Warm)	Wx	0.283	0.313	0.343	In AV Input PSM : Dynamic White (100 IRE)
			Wy	0.299	0.329	0.359	
		WHITE (Normal)	Wx	0.253	0.283	0.313	
			Wy	0.268	0.298	0.328	
		WHITE (Cool)	Wx	0.244	0.274	0.304	
			Wy	0.256	0.286	0.316	

7.Engineering Specification

7-1.General Specification

No	Item	Specification			Remark
1	ENERGE-**15LC1R**	SYNC(V/H)	VIDEO	POWER CONSUMPTION	LED COLOE
	Normal-**15LC1R**	On/On	Active	≤ 40W	BLUE
	Sleep Mode-**15LC1R** (PC Mode)	Off/On On/Off Off/Off	Off	≤ 1W	Amber
	Off Mode-**15LC1R**		Off	≤ 1W	Off(PC) Amber(TV/AV)
	Normal-**20LC1R**	On/On	Active	≤ 65W	BLUE
	Off Misw-**20LC1R**	Off/Off	Off	≤ 1W(110V) ≤ 1W(220V)	Orange
2	D-SUB Pin configuration	1 : RED 3 : BLUE 5 : S.T (GND) 7 : GREEN GND 9 : N.C 11 : ID0(GND) 13 : H-SYNC 15 : SCL		2 : GREEN 4 : ID2 (GND) 6 : RED 8 : BLUE GND 10 : D-GND 12 : SDA 14 : V-SYNC SHELL : GND	10 : DIGITAL GND
3	Control Functin	1) Contrast / Brightness 2) H-Position 3) Tracking : Clock / Phase 4) Auto Configure 5) Reset			

ADJUSTMENT INSTRUCTION

1. Application

This document is applied to 15", 20" LCD TV which is manufactured in Monitor Factory or is produced on the basis of this data.

2. Designation

2.1 The adjustment is according to the order which is designated and which must be followed, according to the plan which can be changed only on agreeing.
2.2. Power Adjustment: Free Voltage
2.3. Magnetic Field Condition: Nil.
2.4. Input signal Unit: Product Specification Standard
2.5. Reserve after operation: Above 30 Minutes
2.6. Adjustment equipments: Pattern Generator (MSPG-925 or Equivalent), DDC Adjustment Jig equipment, SVC remote controller

3. Adjustment

3.1 APC

After Manual-Insult, executing APC

3.2 ISP UOC file

3.2.1 Required Equipment

- JIG for ISP
- PC that is installed with "WISP" program.
- Control + Power LED PCB Ass'y

3.2.2 ISP Sequence

1) Connect main board with JIG for ISP
2) Execute "WISP" Program.
3) Compare UOC version in BOM with version of hex file.
4) Push "Brouse..." button and select hex file.
5) Push " Auto Execute" button.
6) Occur an Error, push "Erase" button and try again and again. 2)~5)
7) After finishing ISP, Must AC off / ON
8) Wait LED is not blink anymore

3.3 ADC Process

"IIC_ SW" must set "0"(After ISP, automatically set "0")

3.3.1 AV(CVBS) Mode Adjustment

3.3.1.1 Auto Gain/Offset Adjustment

■ Select AV(Video) in Input menu

■ Signal equipment : MSPG925
Output Jack : CVBS
Output Voltage : 700 mVp-p (patt # 29 in MSPG925)
Resolution : NTSC J - 720 x 480 @59,94Hz (Model #207 in MSPG925)

■ Adjust by commanding AUTO_COLOR_ADJUST (0xF1) 0x00 0x00 instruction.

3.3.1.2 Confirmation of adjustment process

■ We confirm whether "0x01" address of EEPROM "0xA0" is "0xAA" or not.

■ If "0x01" address of EEPROM "0xA0" isn't "0xAA", we adjust once more in adjustment line by adjust method of 3.2.1.2.

■ We can confirm the ADC values from "0x0C~0x11" addresses in a page "0xA0"

3.3.2 Component Mode Adjustment

3.3.2.1 Auto Gain/Offset Adjustment

■ Select Component in Input menu

■ Signal equipment : MSPG925
Output Jack : D4(Japan) or Componen(Except Japan)
Output Voltage : 700 mVp-p (patt # 8 in MSPG925)
Resolution 483/60P - 720 x 483p @59.94Hz (Model #212 in MSPG925)

■ Adjust by commanding AUTO_COLOR_ADJUST (0xF1) 0x00 0x00 instruction.

3.3.2.2 Confirmation of adjustment process

■ We confirm whether "0x01" address of EEPROM "0xA0" is "0xAA" or not.

■ If "0x01" address of EEPROM "0xA0" isn't "0xAA", we adjust once more in adjustment line by adjust method of 3.2.1.2.

■ We can confirm the ADC values from "0x??~0x??" addresses in a page "0xA0"

Caution

If DDC CMD don't work, please check below.
1. Enter SVC menu by SVC Remote controller
2. Enter "ETC" menu
Check please, IIC_SW is "0" or "1".
- IIC_SW "0" : DDC Communications.(DDC2AB)
- IIC_SW "1" : EDID Write/Read (DDC2B) and Factory default.

3.4 Function Check

3.4.1 Check display and sound

"IIC_ SW" must set "1"

■ Check Input and Signal items. (cf. work instructions)
1. TV
2. AV (CVBS/ S-Video)
3 Component
4. H/P Out

3.4.2 DCXO setting

: After finished all function check, "IIC_ SW" must set "0" by pushing "TILT" key in SVC remocon

4. Total Assembly line process

4.1 Adjustment Preparation

"IIC_ SW" must set "0"

- Above 30 minutes H/run in RF no signal
- 15 Pin D-Sub Jack is connected to the signal of Pattern Generator.

4.2 Confirmation of Luminance

- Set Statement
  Input : CVBS
  Contrast : 100(Max)
  Brightness : 50
  CSM : Normal
- Signal equipment displays
  Output Voltage : 700 mVp-p
  Output Mode : Full White pattern (100 IRE)
- Confirm whether luminance is over 300cd or not

4.3 Confirmation of Color Coordinate

- Input Full White Pattern
- Set CSM : Normal (9300K)
- Confirm whether x = 0.283±0.03, y=0.298±0.03 or not
- Set CSM : Warm (6500K)
- Confirm whether color coordinate is x= 0.313±0.03, y=0.329±0.03 or not
- Set CSM : Warm (11000K)
- Confirm whether color coordinate is x= 0.274±0.03, y=0.286±0.03 or not
- After confirming Color coordinates, Must return to Normal

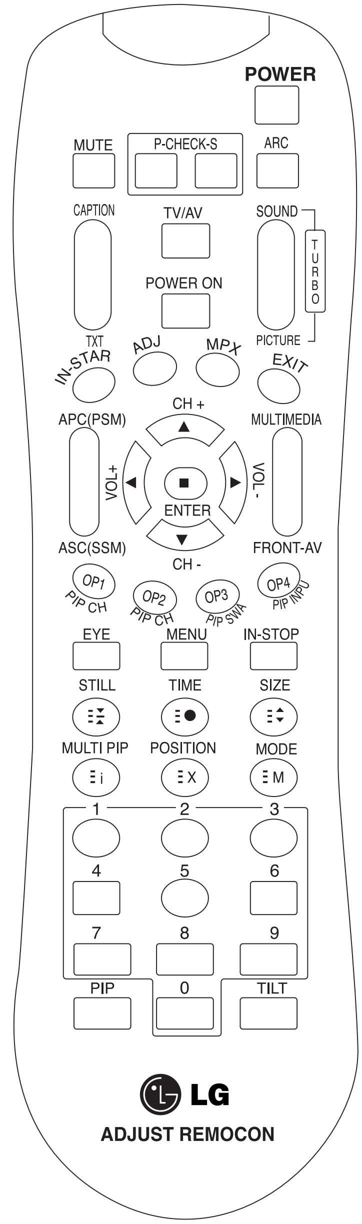
**** After Confirming color coordinate and luminance, "IIC_ SW" must set "1"***

5. Outgoing Condition

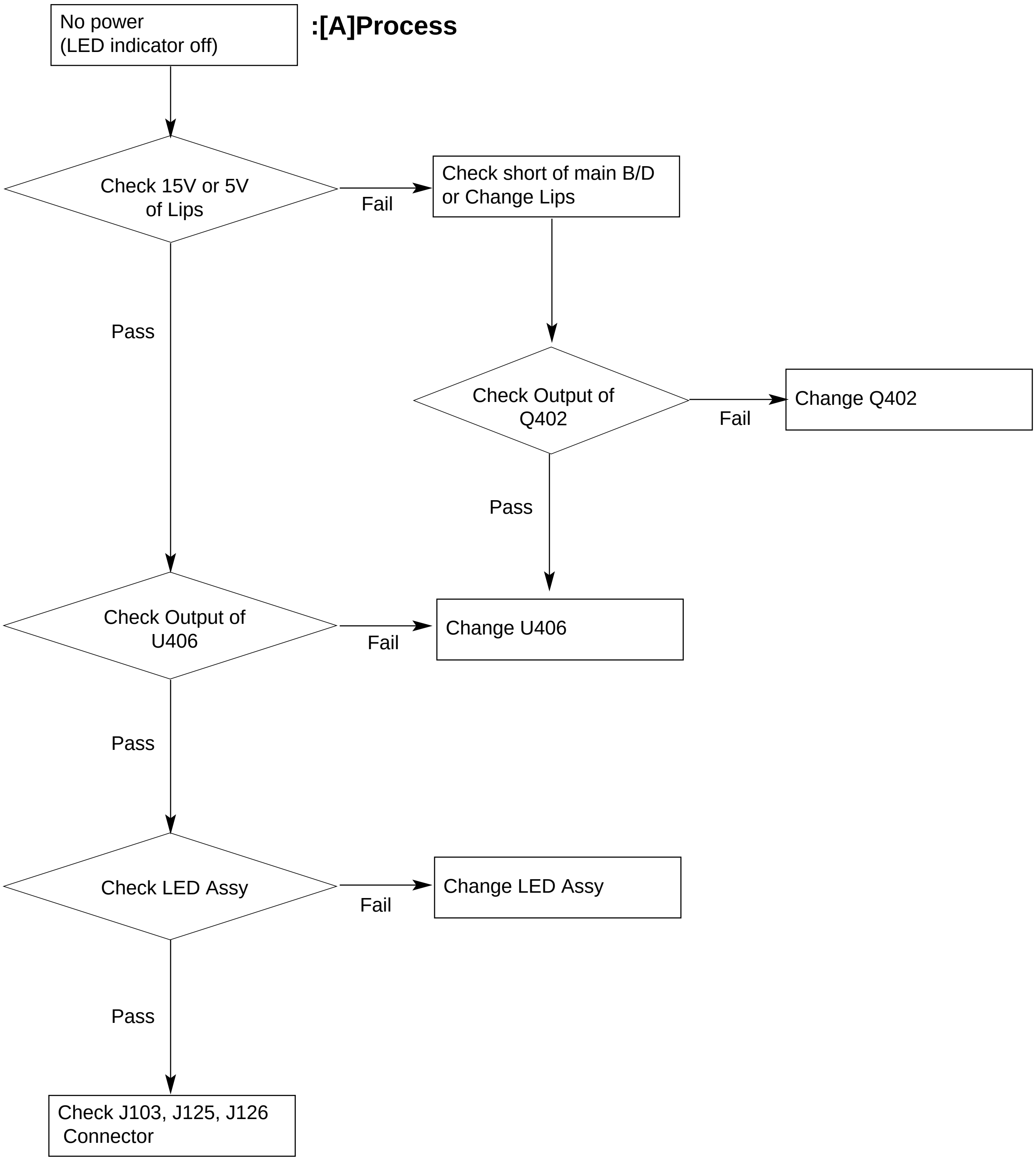
ITEM		Outgoing Condigion			Remarks
Outgoing Condition	Input Source	TV			
	Volume Level	30			
	Power S/W	Off			
	Channel	EZ scan	To Start		
		Manual Program	TV	2	
			Erase		
			Fine	0	
	Ficture	EZ Video	Clear		
		ACC	Normal		
	Sound	AVL	Off		
		Balance	0		
	Timer	Clock	Auto ▶		
		Off Timer	--:-- Off		
		On Timer	--:-- TV 2 Volume 30 Off		
		Auto Off	Off		
	Special	Language	English		
		Input	TV		
		Key lock	Off		
		Power indicator	On		
		Caption/Text	CC1		Canada/
		Captions	Off		USA Only
		Parental	To set (Code : 0000)		
	Screen	Auto Configure	To Set		Only
		Manual Configure	To Set		RGB PC
		Reset	To Set		INPUT

SVC REMOCON

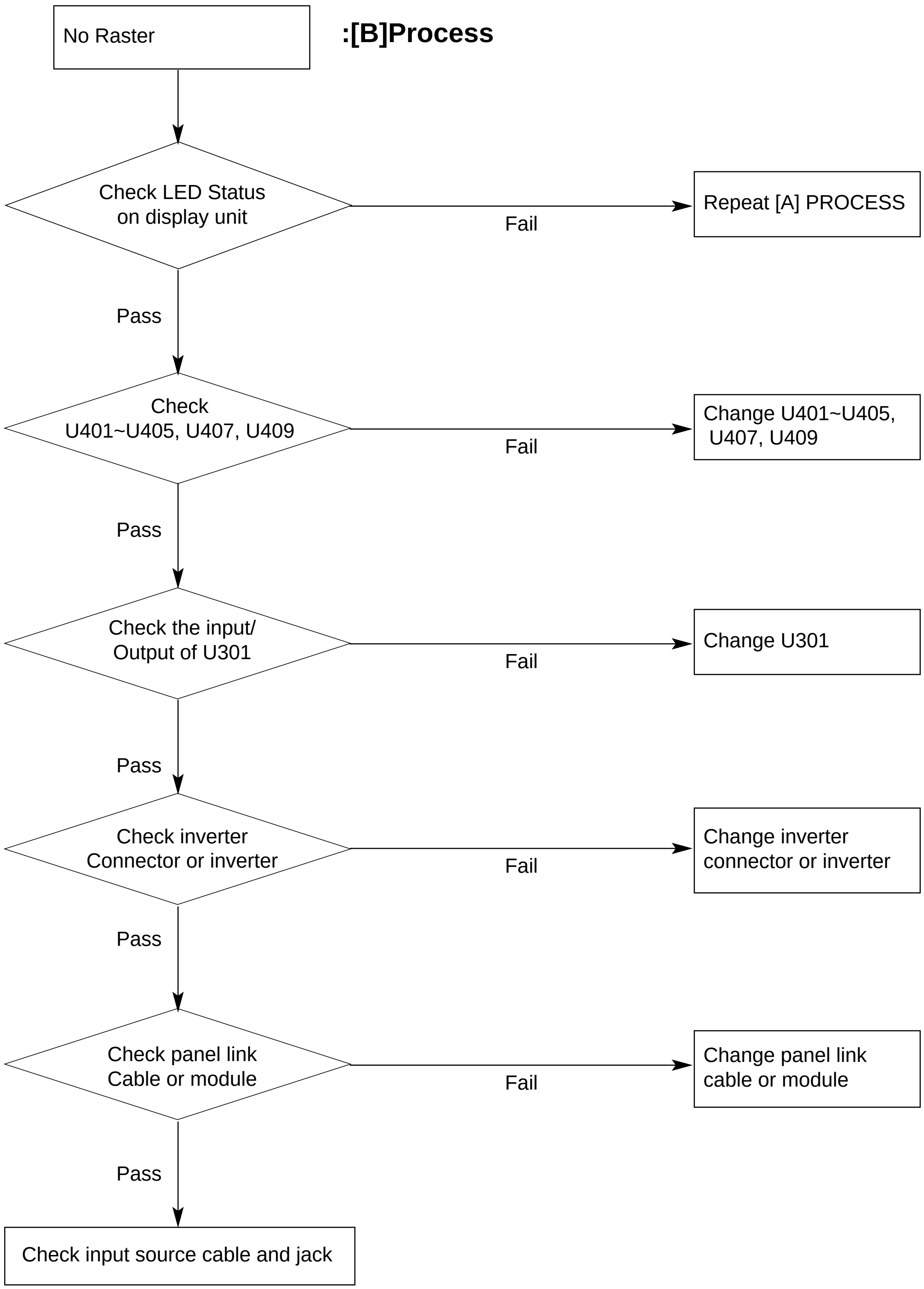
NO.	KEY	FUNTION	REMARK
1	POWER	To turn the TV on or off	
2	MUTE	To activate the mute function.	
3	P-CHECK	To check TV screen image easily.	Shortcut keys
4	S-CHECK	To check TV screen sound easily	Shortcut keys
5	ARC(23inch)	To select size of the main screen (Auto, 4:3, 16:9, 14:3, Zoom, Cinema Zoom)	Shortcut keys
6	CAPTION	Switch to closed caption broadcasting	
7	TXT	To toggle on/off the teletext mode	
8	TV/AV	External input	
9	IN-START	To enter adjustment mode when manufacturing the TV sets. In-Start→Vol±→Auto ADC→Vol±→W/B adjustment→ Exit two times(Adjustment completed)	Use the AV key to enter the screen W/B adjustment mode.
10	MPX	To select the multiple sound mode (Mono, Stereo or MPEG, DOLBY, Digital)	
11	EXIT	To release the adjustment mode	
12	APC(PSM)	To easily adjust the screen according to surrounding brightness	
13	ASC(SSM)	To easily adjust sound according to the program type	
14	MULTIMEDIA	External input	Shortcut keys
15	CH ±	To move channel up/down or to select a functiondisplayed on the screen.	
16	VOL ±	To adjust the volume or accurately control a specific function.	
17	ENTER	To set a specific function or complete setting.	
18	CH-(OP1)	To use as a **red key** in the teletext mode	
19	CH+(OP2)	To use as a **green key** in the teletext mode	
20	SWAP(OP3)	To use as a **yellow key** in the teletext mode	
21	INPUT(OP4)	To use as a **blue key** in the teletext mode	
22	MENU	To select the functions such as video, voice, function or channel.	
23	IN-STOP	To set the delivery condition status after manufacturing the TV set.	
24	HOLD	Used as a hold key in the teletext mode (Page updating is stopped.)	
25	TIME	Displays the teletext time in the normal mode Enables to select the sub code in the teletext mode	
26	SIZE	Used as the size key in the teletext mode	
27	INDEX	Used as the index key in the teletext mode (Top index will be displayed if it is the top text.)	
28	UPDATE	Used as the update key in the teletext mode (Text will be displayed if the current page is updated.)	
29	MODE	Used as Mode in the teletext mode	
30	TILT	To set IIC SW "0" or "1" in the adjustment mode	
31	0~9	To manually select the channel.	

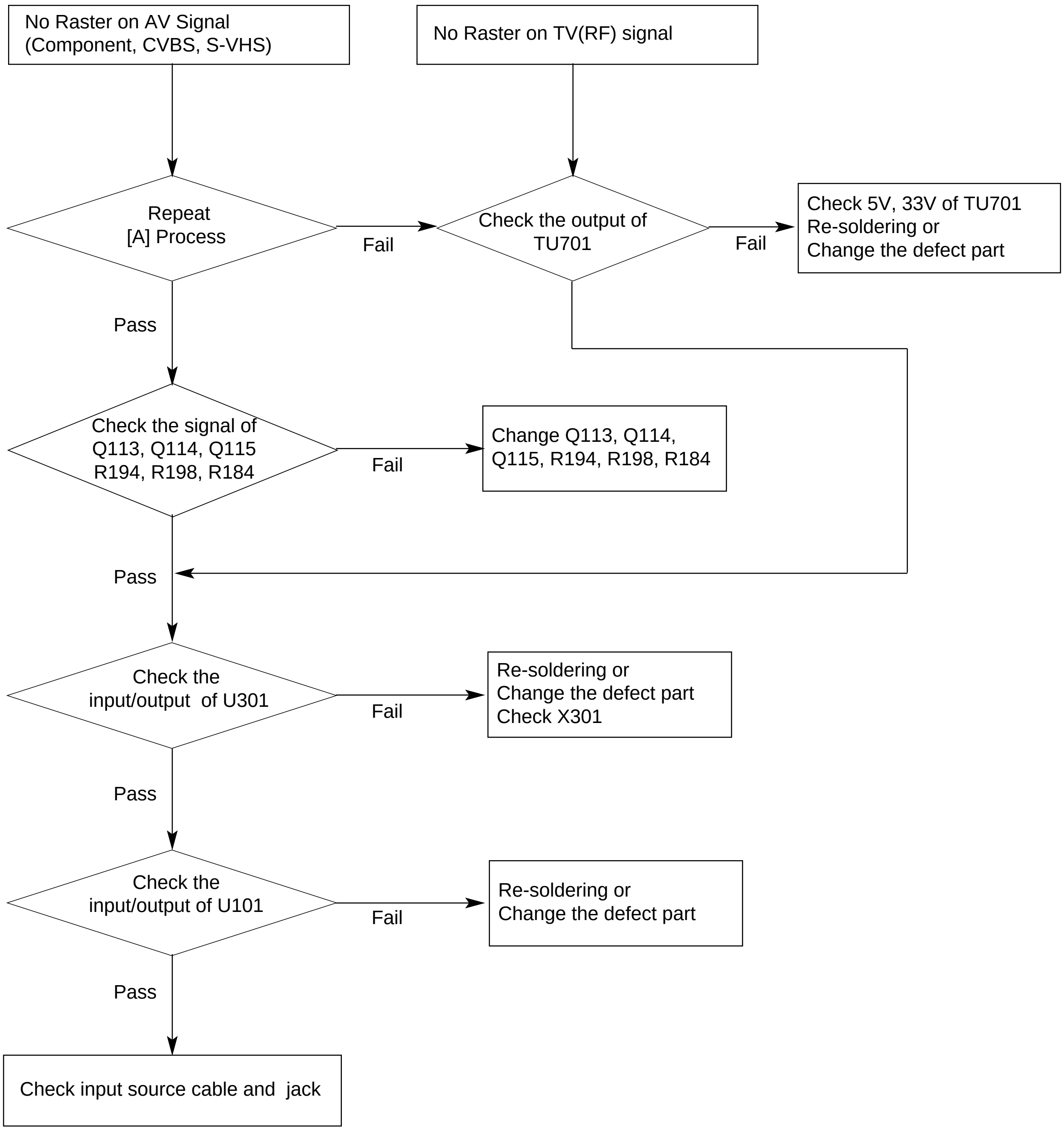


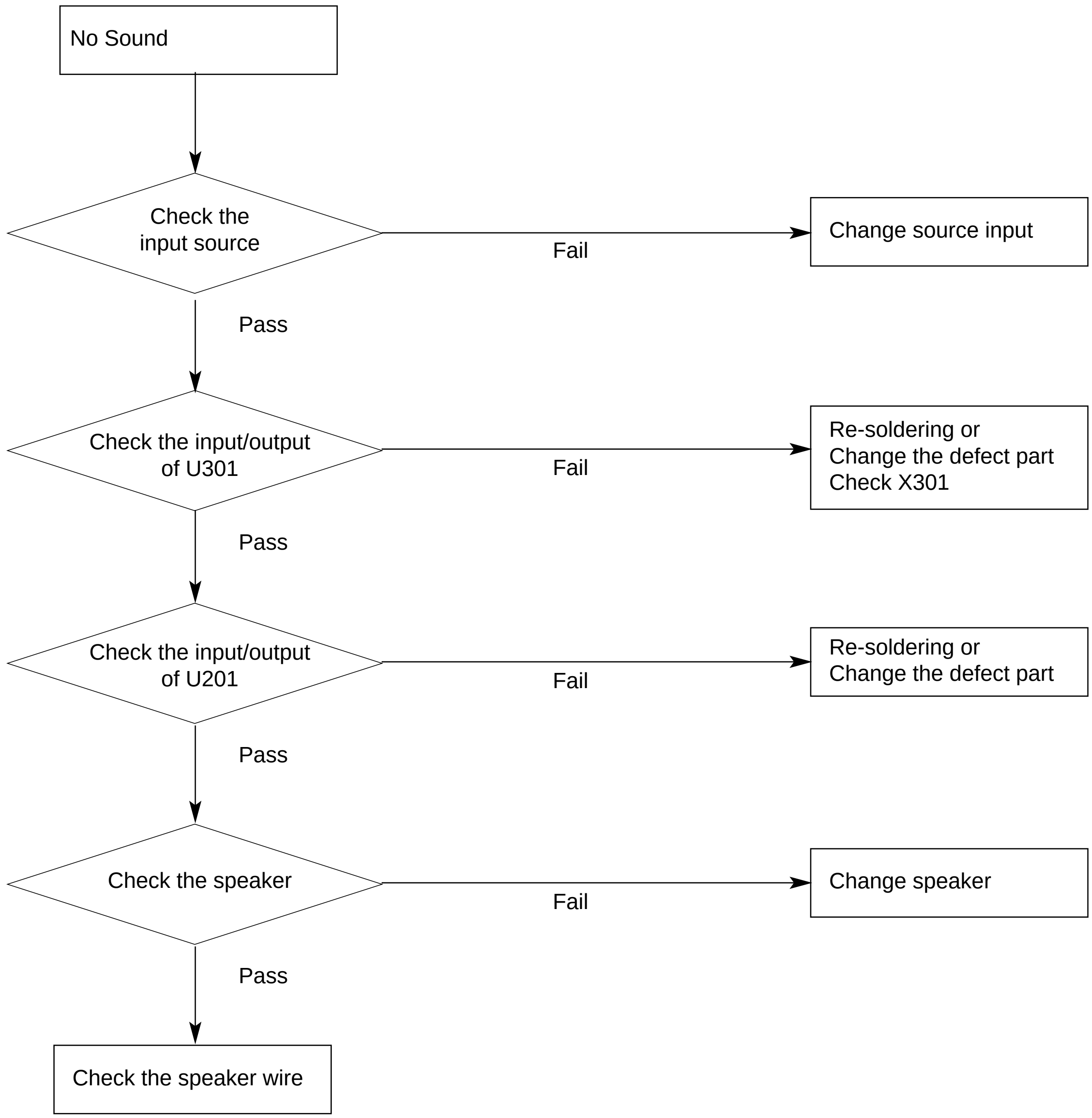
TROUBLESHOOTING



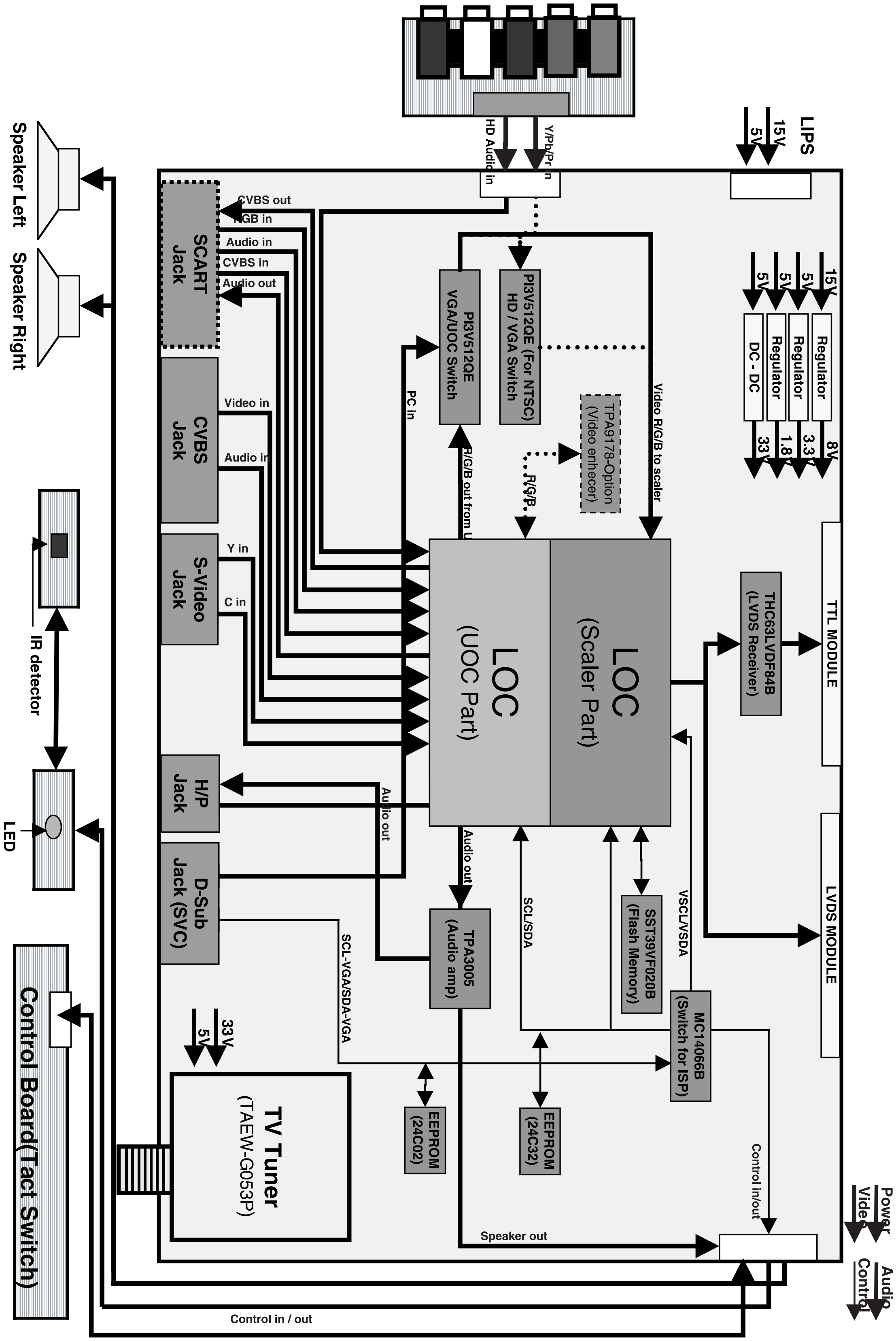
:[B]Process


No Raster
Check LED Status on display unit
Fail
Repeat [A] PROCESS
Pass
Check U401~U405, U407, U409
Fail
Change U401~U405, U407, U409
Pass
Check the input/ Output of U301
Fail
Change U301
Pass
Check inverter Connector or inverter
Fail
Change inverter connector or inverter
Pass
Check panel link Cable or module
Fail
Change panel link cable or module
Pass
Check input source cable and jack


No Raster on AV Signal
(Component, CVBS, S-VHS)
No Raster on TV(RF) signal
Repeat
[A] Process
Fail
Check the output of
TU701
Fail
Check 5V, 33V of TU701
Re-soldering or
Change the defect part
Pass
Check the signal of
Q113, Q114, Q115
R194, R198, R184
Fail
Change Q113, Q114,
Q115, R194, R198, R184
Pass
Check the
input/output of U301
Fail
Re-soldering or
Change the defect part
Check X301
Pass
Check the
input/output of U101
Fail
Re-soldering or
Change the defect part
Pass
Check input source cable and jack


No Sound
Check the input source
Fail
Change source input
Pass
Check the input/output of U301
Fail
Re-soldering or
Change the defect part
Check X301
Pass
Check the input/output of U201
Fail
Re-soldering or
Change the defect part
Pass
Check the speaker
Fail
Change speaker
Pass
Check the speaker wire

BLOCK DIAGRAM



BLOCK DIAGRAM DESCRIPTION

Power Supply Block (LIPS)
This Block Generates DC Voltage (5V,15V) to Main Control system from AC Power (100-240 V, 50/60 Hz, 1.0A)
Also it has the inverter function that converts input voltage to AC Rms value for the LCD lamp.

DC/DC Converter block
DC/DC Converter convert the input 5V,15V to proper 3.3V, 5V, 8V, 12V for Main control system.
For shooting heat trouble, we use the DC/DC converting IC

Audio Amplifier
This block is composed of TPA3005D2 and peripheral device.
The function of the audio amplifier is that to amplify audio L / R signal transmitted from audio decoder. The audio signal is amplified according to pre-defined DC volume control curve.

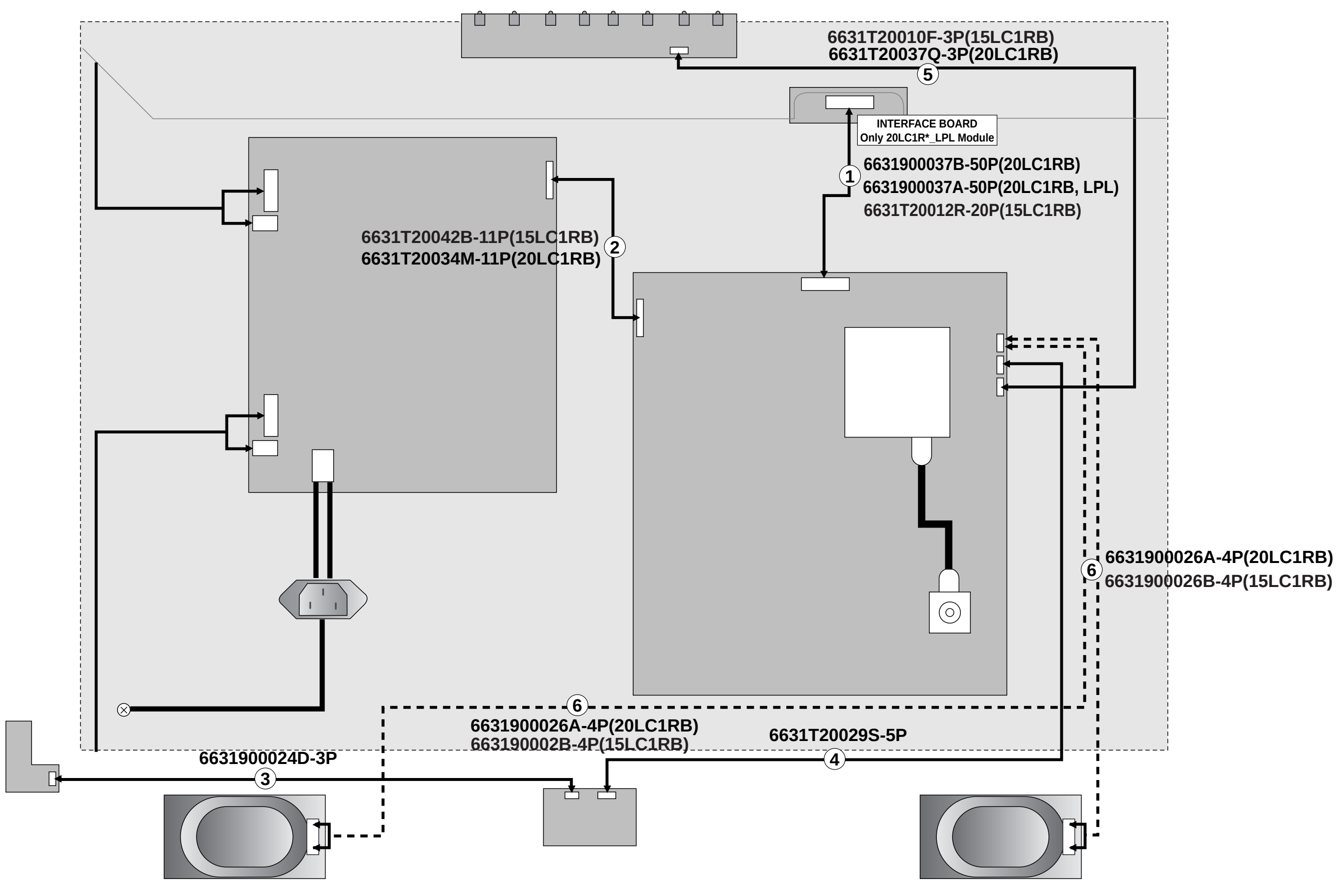
Audio / Video / IF Decoder / Scaler
This block is composed of LOC1 and peripheral devices.
1) Video Decoder
This Block Selects input Video signals (like CVBS, Y/C, SCART RGB) and output RGB signal.
On decoding, We can control signal like Contrast, Brightness, Sharpness, Color, tint signals including Adaptive Comb Filter
2) Audio Decoder
This block analyzes audio input signal through A/V Jack and PC audio and Tuner IF.
The analyzed signals transmitted to audio amplifier
On decoding, We can control signal like Bass, treble.
3) IF Decoder
This block can change IF signal to audio and video signal that transmitted to Video/audio decoder.
4) Scaler
This IC includes A/D Converter and LVDS Transmitter
This IC is directly Inputted Analog Signal and transmits it to LCD Module
5) Micom
This block controls each IC through IIC communication line.

LVDS Rx (DTC34LF86L)
It is composed of DTC34LF86L/THC63LVDF84B.
The LVDS Rx converts the LVDS data streams back into 24bits of CMOS/TTL data with
Falling edge or rising edge clock for convenient with variety of LCD panel controllers.

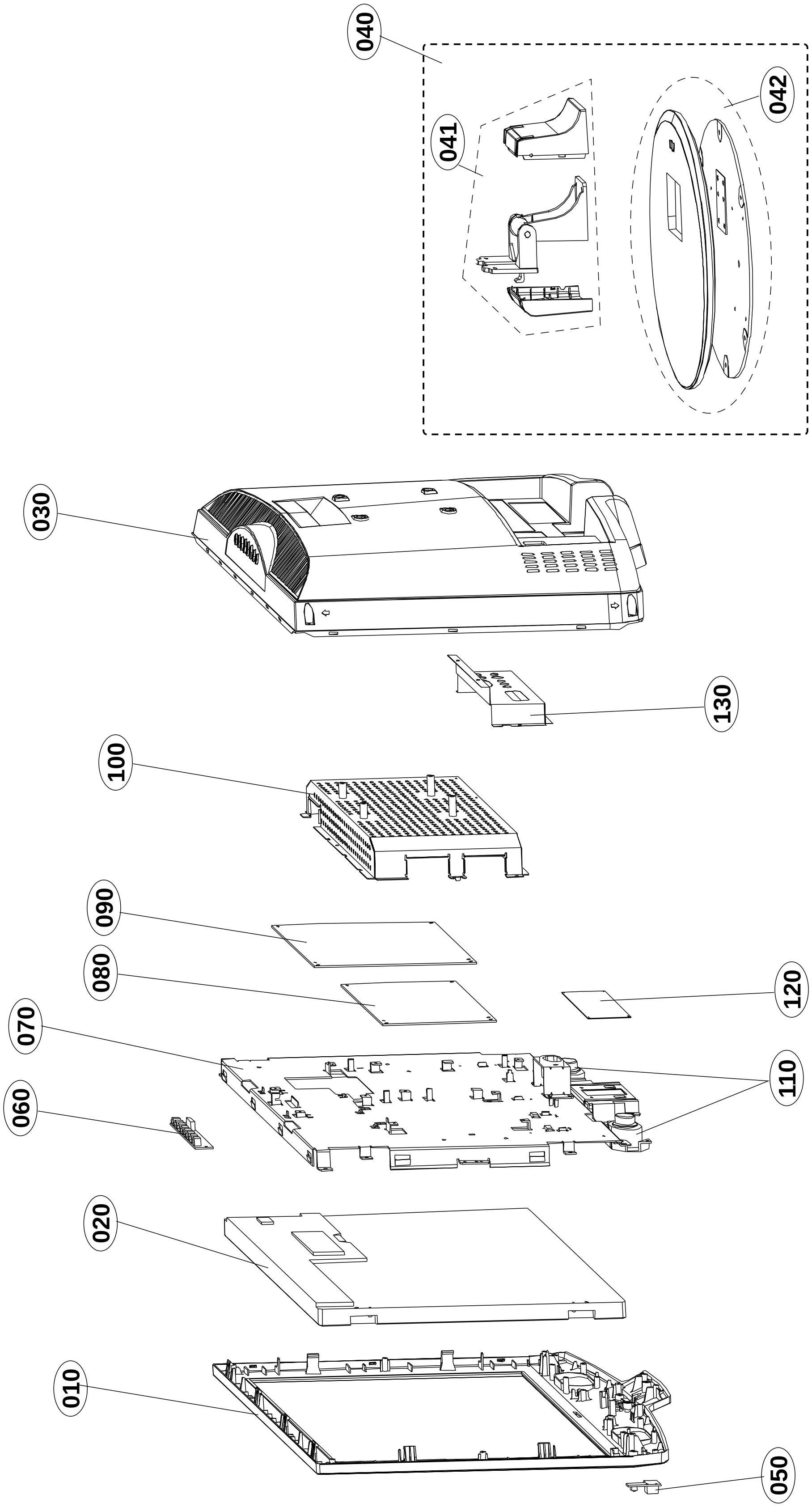
Switch IC (PI3V512QE)
It is composed of PI3V512QE.
This IC selects between D-sub RGB signal and LOC1 RGB signal, and it transmits the selected signal to video signal processor.

TUNER
Micom controls this through IIC Line.
TUNER makes IF and transmits IF signal to LOC1.

WIRING DIAGRAM



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

No.	PART NO.	DESCRIPTION
010	30919B0002M	CABINET ASSEMBLY, **15LC1R** BRAND . NORTH AMERICA(BK, SET)
	30919B0002J	CABINET ASSEMBLY, **15LC1R-MG** BRAND . NORTH AMERICA-**CSKD**
	30919D0001G	CABINET ASSEMBLY, **20LC1R-MG**(BK) BRAND 3090TKD006 SET
	30919D0001H	CABINET ASSEMBLY, **20LC1R-MG**(BK) BRAND 3090TKD006 **C/SKD**
020	6304FLP234A	LCD(LIQUID CRYSTAL DISPLAY), **LC150X02-TL01 LG PHILPS TFT COLOR** TN LAMP MULTI
	6304FLP188A	LCD(LIQUID CRYSTAL DISPLAY), **LC201V02-A3KA LG PHILPS TFT COLOR** PB FREE MODULE , SS D-IC
030	3809900013E	BACK COVER ASSEMBLY, **15LC1** 2PHONE FOR N.A
	3809900002L	BACK COVER ASSEMBLY, **20LC1R-MG**(USA) NON SET(BK)
	3809900002M	BACK COVER ASSEMBLY, **20LC1R-MG**(USA) NON **C/SKD**(BK)
040	3043900003F	TILT SWIVEL ASSEMBLY, **15LC1R-MG** 49509K0009A N/A NO PRINTNG
	3043900002B	TILT SWIVEL ASSEMBLY, **20LC1R**-ZB 3550TKK974
041	3043900039A	TILT SWIVEL ASSEMBLY, **15LC1** . STAND BODY ASSY-**CSKD**
	3043900010B	TILT SWIVEL ASSEMBLY, **20LC1RB**-ZG NON HINGE ASSY(BK)-**CSKD**
042	3043900040C	TILT SWIVEL ASSEMBLY, **15LC1R-MG**(N/A) . STAND BASE ASSY(BK, NO PRINT)**-CSKD**
	3043900011B	TILT SWIVEL ASSEMBLY, **20LC1** NON STAND BASE ASSY(FOR USA)**-CSKD**
050	68719ST799B	PWB(PCB) ASSEMBLY,SUB, SUB T.T CL81 LC1R ALEULFX LED
	68719ST799E	PWB(PCB) ASSEMBLY,SUB, SUB T.T CL81 20LC1R-ZG SLEELFP LED+IR**-CSKD**
060	68719ST801A	PWB(PCB) ASSEMBLY,SUB, SUB T.T CL81 **1XLC1** ANEULFX CONTROL
	68719ST956A	PWB(PCB) ASSEMBLY,SUB, SUB T.T CL81 **15LC1R** SNRULFT CONTROL**-CSKD**
	68719ST798A	PWB(PCB) ASSEMBLY,SUB, SUB T.T CL81 **2XLC1** ALEULFX CONTROL
	68719ST798B	PWB(PCB) ASSEMBLY,SUB, SUB T.T CL81 **2XLC1** SLEELFP CONTROL**-CSKD**
070	49519S0004B	METAL ASSEMBLY, FRAME, MAIN ASSY-**15LC1-LPL-TN**
	49519S0004F	METAL ASSEMBLY, FRAME, MAIN ASSY-**15LC1-LPL TN C/SKD**
	49519S0001A	METAL ASSEMBLY, FRAME, **20LC1**
	49519S0001B	METAL ASSEMBLY, FRAME, **20LC1R-ZB(C/SKD)**
080	6871TPT318B	PWB(PCB) ASSEMBLY,POWER, MFT 4-LAMP POWER TOTAL BRAND . **15LC1R**
	6871TPT319A	PWB(PCB) ASSEMBLY,POWER, 6-LAMP TV/MNT/MFT POWER TOTAL BRAND .**-20LC1R**
090	33139N1011C	MAIN TOTAL ASSEMBLY, **15LC1R-MG** BRAND CL-81(USA)
	33139N1015A	MAIN TOTAL ASSEMBLY, **15LC1RX-MG(SKD)** BRAND CL-81
	33139N2021A	MAIN TOTAL ASSEMBLY, **20LC1R-MG**(C) BRAND CL-81
	33139N2021C	MAIN TOTAL ASSEMBLY, **20LC1R-MG SKD**(C) BRAND CL-81
100	49519K0117B	METAL ASSEMBLY, SHIELD, AV NTSC **15LC1**
	49519K0117E	METAL ASSEMBLY, SHIELD, 15LC1R-MG(NTSC, USA) AV SHIELD PHANTOM-**20LC1R**
110	6400GTTX02A	SPEAKER,FULLRANGE, EF1527C-6428-6 TOPTONE FULL-RANGE(GENERAL) 16OHM 5/7W 82DB OTHERS 40*70 210HZ
120	68719ST077A	PWB(PCB) ASSEMBLY,SUB, SUB T.T CL81 **20LC1R** ALEULFX HIROSE**-ONLY 20LC1R**
	68719ST077B	PWB(PCB) ASSEMBLY,SUB, SUB T.T CL81 **20LC1R** SLEELFP INTERFACE(HIROSE)**-ONLY 20LC1R, CSKD**
130	49519K0116A	METAL ASSEMBLY, REAR **15LC1**
	49519K0116B	METAL ASSEMBLY, REAR **15LC1 C/SKD**
	4950TKA372A	METAL, SHIELD, MAIN **20LC1**
	4950TKA372D	METAL, SHIELD, MAIN **20LC1, C/SKD**

REPLACEMENT PARTS LIST

For Capacitor & Resistors, the charactors at 2nd and 3rd digit in the P/No. means as follows;	CC, CX, CK, CN, CH : Ceramic CQ : Polyestor CE : Electrolytic CF : Fixed Film	RD : Carbon Film RS : Metal Oxide Film RN : Metal Film RH : CHIP, Metal Glazed(Chip) RR : Drawing

DATE: 2006. 01. 20.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		MAIN BOARD		
		CAPACITOR		
		C301	0CH3224K946	0.22UF 50V Z F 2012 R/TP
		C307	0CH3224K946	0.22UF 50V Z F 2012 R/TP
		C3092	0CH3224K946	0.22UF 50V Z F 2012 R/TP
		C316	0CH3224K946	0.22UF 50V Z F 2012 R/TP
		C319	0CH3224K946	0.22UF 50V Z F 2012 R/TP
		C322	0CH3224K946	0.22UF 50V Z F 2012 R/TP
		C327	0CH3224K946	0.22UF 50V Z F 2012 R/TP
		C330	0CH3224K946	0.22UF 50V Z F 2012 R/TP
		C367	0CH3224K946	0.22UF 50V Z F 2012 R/TP
		C394	0CH3224K946	0.22UF 50V Z F 2012 R/TP
		C395	0CH3224K946	0.22UF 50V Z F 2012 R/TP
		C102	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP-**15LC1R**
		C111	0CK105DH56A	1UF 2012 25V 10% X7R R/TP-**15LC1R**
		C112	0CK105DH56A	1UF 2012 25V 10% X7R R/TP-**15LC1R**
		C113	0CH5220K416	22PF 50V 5% NP0 2012 R/TP-**15LC1R**
		C114	0CH5470K416	47PF 50V 5% NP0 2012 R/TP-**15LC1R**
		C115	0CH5470K416	47PF 50V 5% NP0 2012 R/TP-**15LC1R**
		C116	0CH5101K416	100PF 50V 5% NP0 2012 R/TP-**15LC1R**
		C124	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C132	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C144	0CK105DH56A	1UF 2012 25V 10% X7R R/TP
		C174	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C176	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C177	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C178	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C180	0CK475DD57A	4.7UF 2012 10V 10% X5R R/TP
		C181	0CK475DD57A	4.7UF 2012 10V 10% X5R R/TP
		C183	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C184	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C185	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C187	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C188	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C190	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C192	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C197	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C205	0CH3474H946	"0.47UF 25V 80%,-20% F(Y5V)"
		C209	0CH3474H946	"0.47UF 25V 80%,-20% F(Y5V)"
		C211	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C212	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C213	0CH3474H946	"0.47UF 25V 80%,-20% F(Y5V)"
		C215	0CH3474H946	"0.47UF 25V 80%,-20% F(Y5V)"
		C216	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C217	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C228	0CH3474H946	"0.47UF 25V 80%,-20% F(Y5V)"
		C236	0CH5102K416	1000PF 50V 5% NP0 2012 R/TP
		C237	0CH5102K416	1000PF 50V 5% NP0 2012 R/TP
		C238	0CH5102K416	1000PF 50V 5% NP0 2012 R/TP
		C239	0CH5102K416	1000PF 50V 5% NP0 2012 R/TP
		C240	0CH3474H946	"0.47UF 25V 80%,-20% F(Y5V)"
		C3001	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C3002	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C3011	0CH3103K516	10000PF 50V 10% B(Y5P) 2012
		C3012	0CH5470K416	47PF 50V 5% NP0 2012 R/TP-**15LC1R**

DATE: 2006. 01. 20.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C3012	0CH6470K416	47PF 2012 50V 5% NP0 R/TP-**20LC1R**
		C3013	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C3014	0CH5470K416	47PF 50V 5% NP0 2012 R/TP-**15LC1R**
		C3014	0CH6470K416	47PF 2012 50V 5% NP0 R/TP-**20LC1R**
		C3022	0CH3474H946	"0.47UF 25V 80%,-20% F(Y5V)"
		C3024	0CH5470K416	47PF 50V 5% NP0 2012 R/TP-**15LC1R**
		C3024	0CH6470K416	47PF 2012 50V 5% NP0 R/TP-**20LC1R**
		C3026	0CH3474H946	"0.47UF 25V 80%,-20% F(Y5V)"
		C3028	0CH5470K416	47PF 50V 5% NP0 2012 R/TP-**15LC1R**
		C3028	0CH6470K416	47PF 2012 50V 5% NP0 R/TP-**20LC1R**
		C3033	0CH5470K416	47PF 50V 5% NP0 2012 R/TP-**15LC1R**
		C3033	0CH6470K416	47PF 2012 50V 5% NP0 R/TP-**20LC1R**
		C3043	0CH5470K416	47PF 50V 5% NP0 2012 R/TP-**15LC1R**
		C3043	0CH6470K416	47PF 2012 50V 5% NP0 R/TP-**20LC1R**
		C3051	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C3061	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C3062	0CH5470K416	47PF 50V 5% NP0 2012 R/TP-**15LC1R**
		C3062	0CH6470K416	47PF 2012 50V 5% NP0 R/TP-**20LC1R**
		C3082	0CK225DH94A	"2.2UF 2012 25V 80%,-20% F(Y"
		C3083	0CK225DH94A	"2.2UF 2012 25V 80%,-20% F(Y"
		C3084	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C3093	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C3102	0CK475DD57A	4.7UF 2012 10V 10% X5R R/TP
		C313	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C331	0CH3103K516	10000PF 50V 10% B(Y5P) 2012
		C332	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C334	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C335	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C336	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C337	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C338	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C339	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C340	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C341	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C342	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C343	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C347	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C348	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C350	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C358	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C360	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C361	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C362	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C363	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C364	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C365	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C366	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C370	0CH3223K516	22000PF 2012 50V 10% B(Y5P)
		C373	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C374	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C375	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C379	0CH5102K416	1000PF 50V 5% NP0 2012 R/TP
		C386	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C388	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP

DATE: 2006. 01. 20.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C389	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C390	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C391	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C396	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C403	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C409	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C411	0CK475DD57A	4.7UF 2012 10V 10% X5R R/TP
		C413	0CH3103K516	10000PF 50V 10% B(Y5P) 2012
		C415	0CK105DH56A	1UF 2012 25V 10% X7R R/TP
		C416	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C421	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C422	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C425	0CH3105H946	"1UF 2012 25V 80%,-20% F(Y5V"
		C704	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C705	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C708	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C744	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP
		C110	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C117	0CK105DH56A	1UF 2012 25V 10% X7R R/TP
		C118	0CK105DH56A	1UF 2012 25V 10% X7R R/TP
		C129	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R**-15LC1R**
		C130	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R**-15LC1R**
		C131	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R**-15LC1R**
		C145	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(
		C202	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C203	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C206	0CK224CF56A	0.22UF 1608 16V 10% R/TP X7
		C207	0CK105CF94A	"1UF 1608 16V 80%,-20% R/TP"
		C208	0CK105CF94A	"1UF 1608 16V 80%,-20% R/TP"
		C210	0CK224CF56A	0.22UF 1608 16V 10% R/TP X7
		C214	0CK224CF56A	0.22UF 1608 16V 10% R/TP X7
		C218	0CK224CF56A	0.22UF 1608 16V 10% R/TP X7
		C221	0CK474CH94A	"0.47UF 1608 25V 80%,-20% R/"
		C222	0CK474CH94A	"0.47UF 1608 25V 80%,-20% R/"
		C223	0CK105CF94A	"1UF 1608 16V 80%,-20% R/TP"
		C224	0CK474CH94A	"0.47UF 1608 25V 80%,-20% R/"
		C225	0CK474CH94A	"0.47UF 1608 25V 80%,-20% R/"
		C3015	0CK474CH94A	"0.47UF 1608 25V 80%,-20% R/"
		C3017	0CK474CH94A	"0.47UF 1608 25V 80%,-20% R/"
		C3019	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C302	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C303	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C3031	0CK474CH94A	"0.47UF 1608 25V 80%,-20% R/"
		C3032	0CK474CH94A	"0.47UF 1608 25V 80%,-20% R/"
		C3035	0CK225DH94A	"2.2UF 2012 25V 80%,-20% F(Y"
		C3036	0CK333CK56A	33000PF 1608 50V 10% R/TP X
		C304	0CK224CF56A	0.22UF 1608 16V 10% R/TP X7
		C3040	0CK225DH94A	"2.2UF 2012 25V 80%,-20% F(Y"
		C3042	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C3044	0CK333CK56A	33000PF 1608 50V 10% R/TP X
		C3047	0CK474CH94A	"0.47UF 1608 25V 80%,-20% R/"
		C3050	0CK333CK56A	33000PF 1608 50V 10% R/TP X
		C3064	0CK474CH94A	"0.47UF 1608 25V 80%,-20% R/"
		C3066	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C3068	0CK333CK56A	33000PF 1608 50V 10% R/TP X
		C3069	0CK333CK56A	33000PF 1608 50V 10% R/TP X
		C3070	0CK333CK56A	33000PF 1608 50V 10% R/TP X
		C3085	0CK225DH94A	"2.2UF 2012 25V 80%,-20% F(Y"
		C3086	0CK225DH94A	"2.2UF 2012 25V 80%,-20% F(Y"
		C3090	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C3091	0CK474CH94A	"0.47UF 1608 25V 80%,-20% R/"
		C312	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R

DATE: 2006. 01. 20.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C320	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C345	0CK224CF56A	0.22UF 1608 16V 10% R/TP X7
		C352	0CK224CF56A	0.22UF 1608 16V 10% R/TP X7
		C354	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C355	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C356	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C357	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C369	0CK224CF56A	0.22UF 1608 16V 10% R/TP X7
		C372	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C380	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C381	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C382	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C387	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C392	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C706	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(
		C707	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(
		C710	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(
		C156	0CH6680K416	68PF 2012 50V 5% NP0 R/TP**-15LC1R**
		C191	0CH6331K416	330PF 2012 50V 5% NP0 R/TP
		C305	0CH6151K416	150PF 2012 50V 5% NP0 -
		C3060	0CH2392K516	3900PF 50V 10% B(Y5P) 2012
		C317	0CH2472K516	4700PF 50V 10% B(Y5P) 2012
		C329	0CH2334F566	0.33UF 16V 10% X7R 2012 R/T
		C383	0CH2222K516	2200PF 50V 10% B(Y5P) 2012
		C126	0CC101CK41A	100PF 1608 50V 5% R/TP NP0**-15LC1R**
		C127	0CC101CK41A	100PF 1608 50V 5% R/TP NP0**-15LC1R**
		C153	0CC101CK41A	100PF 1608 50V 5% R/TP NP0**-15LC1R**
		C154	0CC101CK41A	100PF 1608 50V 5% R/TP NP0**-15LC1R**
		C155	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C157	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C163	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C165	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C167	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C189	0CC271CK41A	270PF 1608 50V 5% R/TP NP0
		C198	0CC271CK41A	270PF 1608 50V 5% R/TP NP0
		C199	0CC271CK41A	270PF 1608 50V 5% R/TP NP0
		C204	0CC221CK41A	220PF 1608 50V 5% R/TP NP0
		C232	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C233	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C3030	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C3037	0CC150CK41A	15PF 1608 50V 5% R/TP NP0
		C3045	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C3048	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C3049	0CC150CK41A	15PF 1608 50V 5% R/TP NP0
		C3073	0CC150CK41A	15PF 1608 50V 5% R/TP NP0
		C308	0CC150CK41A	15PF 1608 50V 5% R/TP NP0
		C3080	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C3081	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C309	0CC150CK41A	15PF 1608 50V 5% R/TP NP0
		C3100	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C3101	0CC270CK41A	27PF 1608 50V 5% R/TP NP0
		C376	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C377	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C378	0CC470CK41A	47PF 1608 50V 5% R/TP NP0
		C393	0CC100CK41A	10PF 1608 50V 5% R/TP NP0
		C412	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C134	0CE228ED618	"2200UF KMG,RD 10V 20% FL TA"
		C146	0CE108EH618	1000UF KMG 25V 20% FL TP 5
		C226	0CE477EH618	470UF KMG 25V 20% FL TP 5
		C227	0CE477EH618	470UF KMG 25V 20% FL TP 5
		C405	0CE477ED610	"470UF KMG,RD 10V 20% FL BUL"
		C748	0CE226EK610	"22UF KMG,RD 50V 20% FL BULK"

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
				DATE: 2006. 01. 20.
		C101	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C162	0CH8106F691	10UF 16V 20% 105STD (CYL) R
		C164	0CH8106F691	10UF 16V 20% 105STD (CYL) R
		C166	0CH8106F691	10UF 16V 20% 105STD (CYL) R
		C175	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C194	0CH8106F691	10UF 16V 20% 105STD (CYL) R
		C195	0CH8106F691	10UF 16V 20% 105STD (CYL) R
		C196	0CH8106F691	10UF 16V 20% 105STD (CYL) R
		C201	0CH8476H691	47UF 25V 20% 105STD (CYL) R
		C220	0CE337SC6D8	"330UF MVG,MC,VC 6.3V 20% SM"
		C3004	0CH8106F691	10UF 16V 20% 105STD (CYL) R
		C3046	0CE475WJ6DC	4.7UF MVK 35V 20% R/TP(SMD)
		C3071	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C3094	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C311	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C318	0CE105WK6DC	1UF MVK 50V 20% R/TP(SMD) S
		C321	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C323	0CH8106F691	10UF 16V 20% 105STD (CYL) R
		C359	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C371	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C384	0CH8106F691	10UF 16V 20% 105STD (CYL) R
		C385	0CH8106F691	10UF 16V 20% 105STD (CYL) R
		C404	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C408	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C410	0CE226WF6DC	22UF MVK 16V 20% R/TP(SMD)
		C414	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C420	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C423	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C715	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP-**20LC1R**
		C716	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP-**20LC1R**
		C717	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP-**20LC1R**
		C718	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP-**20LC1R**
		C719	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP-**20LC1R**
		C720	0CH3104K566	0.1UF 50V 10% X7R 2012 R/TP-**20LC1R**
		C731	0CC330CK41A	33PF 1608 50V 5% R/TP NP0-**20LC1R**
		C732	0CC330CK41A	33PF 1608 50V 5% R/TP NP0-**20LC1R**
		C733	0CC330CK41A	33PF 1608 50V 5% R/TP NP0-**20LC1R**
		C734	0CC220CK41A	22PF 1608 50V 5% R/TP NP0-**20LC1R**
		C750	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD)
		C751	0CE226WF6DC	22UF MVK 16V 20% R/TP(SMD)
DIODEs				
		D107	0DS226009AA	KDS226 TP KEC - 80V - - 4NS
		D108	0DS226009AA	KDS226 TP KEC - 80V - - 4NS
		D109	0DS226009AA	KDS226 TP KEC - 80V - - 4NS
		D110	0DSON00138A	"MMBD301LT1G,LF ON SEMI R/TP-**15LC1R**
		D701	0DS226009AA	KDS226 TP KEC - 80V - - 4NS
		D703	0DSON00138A	"MMBD301LT1G,LF ON SEMI R/TP"
		D101	0DS226009AA	KDS226 TP KEC - 80V - - 4NS-**15LC1R**
		D102	0DS226009AA	KDS226 TP KEC - 80V - - 4NS-**15LC1R**
		D103	0DS226009AA	KDS226 TP KEC - 80V - - 4NS-**15LC1R**
		D106	0DD184009AA	KDS184 TP KEC - 85V - - - 3
		D702	0DSKE00248A	KDS114 KEC REEL TAPING USC
		ZD201	0DZ120009CF	UDZ 12B TP ROHM-K SOD323 20
		ZD102	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD103	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD109	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323-**15LC1R**
		ZD111	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323-**15LC1R**
		ZD112	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323-**15LC1R**
		ZD113	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323-**15LC1R**
		ZD114	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323-**15LC1R**

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
				DATE: 2006. 01. 20.
		ZD115	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323-**15LC1R**
		ZD130	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD131	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD136	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD137	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD138	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD146	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD147	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD150	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD151	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD155	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD703	0DZRM00448A	UDZS33B ROHM REEL TAPING UM
		ZD704	0DZRM00448A	UDZS33B ROHM REEL TAPING UM
		ZD105	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323-**15LC1R**
		ZD106	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323-**15LC1R**
		ZD108	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD110	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD148	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD149	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD153	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD154	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
IC				
		U303	0IMMR00112A	MX29LV002NCBQC-70G MACRONIX-**15LC1R**
		U303	0IMMR00112A	MX29LV002NCBQC-70G MACRONIX-**20LC1R**
		U302	0IMMRSG036D	"M24C32-WMN6TPW,LF SGS-THOMS"
			0IZZ9B0020B	UOC PHILIPS SIP 388PIN EEPR-**15LC1R**
			0IZZ9B0019B	UOC PHILIPS SIP 388PIN EEPR-**20LC1R**
			0IZZ9H0184A	0IMMR00112A MACRONIX PLCC 3-**15LC1R**
			0IZZ9H0060B	0IMMR00112A MACRONIX PLCC 3-**20LC1R**
		U106	0IMMRSG036A	"M24C02-WMN6T(P),LF SGS-THOM-**15LC1R**
		U101	0IPRP00639A	"PI3V512QE PERICOM 24P,QSOP"
		U102	0IPRP00639A	"PI3V512QE PERICOM 24P,QSOP"
		U201	0IPRP00007A	"TPA3005D2PHPRG4,PB FREE TEX"
		U301	0IPRP00641C	"TDA15511E PHILIPS 388PIN,BG"
		U402	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULA
		U404	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULA
		U401	0IKE780800J	KIA7808API 3 ST REGULATOR .
		U403	0IPMGSG018D	LD1086DT18TR-LF SGS-THOMSON
		U408	0IMCRKE010A	KIA7812AF KEC 2P DPACK R/TP-**20LC1R**
		U409	0ISS780500H	"KA78M05-R 3P,D-PAK TP 5V 0."
		U703	0IPRP00667A	DTC34LF86L DOESTEK 56PIN TS-**20LC1R**
		U704	0ISS780500H	"KA78M05-R 3P,D-PAK TP 5V 0."
		U112	0ISTL00031A	"MC74HC4066ADR2G,LF ON SEMI"
COIL & FILTER & INDUCTOR				
		L201	61409B0002A	DBF-1030S DONGBANG 30UH 15%
		L202	61409B0002A	DBF-1030S DONGBANG 30UH 15%
		L203	61409B0002A	DBF-1030S DONGBANG 30UH 15%
		L204	61409B0002A	DBF-1030S DONGBANG 30UH 15%
		L712	150-985B	DR8*11 2.4MH 0.16MM 270.5
		L101	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L115	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L205	6210TCE0014	HB-1M2012-221 CERATEC R/TP
		L206	6210TCE0014	HB-1M2012-221 CERATEC R/TP
		L207	6210TCE0014	HB-1M2012-221 CERATEC R/TP
		L208	6210TCE0014	HB-1M2012-221 CERATEC R/TP
		L301	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L304	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L306	6200J00005E	HH-1M2012-601JT CERATEC R/T

DATE: 2006. 01. 20.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		L310	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L312	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L313	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L314	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L317	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L318	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L321	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L323	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L325	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L327	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L328	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L329	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L334	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L335	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L302	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L305	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L307	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L308	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L324	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L330	6200J00005E	HH-1M2012-601JT CERATEC R/T
		L333	6200J00005E	HH-1M2012-601JT CERATEC R/T
		U701	6200VQS001F	OFWM3960M SIEMENS 38.9MHZ (
		U702	6200QL3003C	K9362M EPCOS BULK NTSC SOUN
		L116	0LCML00020C	MLI-201212-100K 10UH MAG LA
		L117	0LCML00020C	MLI-201212-100K 10UH MAG LA
		L704	0LC0562001A	0.56UH 10% 2012 R/TC FI-A20
		L731	0LC1020101A	1UH 10% 2012 R/TC FI-B2012-
TRANSISTOR				
		Q203	0TR162309CA	KSC1623 TP SAMSUNG SOT23 N
		Q110	0TR162309CA	KSC1623 TP SAMSUNG SOT23 N
		Q111	0TR162309CA	KSC1623 TP SAMSUNG SOT23 N
		Q112	0TR162309CA	KSC1623 TP SAMSUNG SOT23 N
		Q113	0TR162309CA	KSC1623 TP SAMSUNG SOT23 N
		Q114	0TR162309CA	KSC1623 TP SAMSUNG SOT23 N
		Q115	0TR162309CA	KSC1623 TP SAMSUNG SOT23 N
		Q704	0TR162309CA	KSC1623 TP SAMSUNG SOT23 N
		Q101	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T**-15LC1R**
		Q102	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T**-15LC1R**
		Q103	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T
		Q109	0TR390609FA	FAIRCHILD KST3906-MTF TP SO
		Q116	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T**-15LC1R**
		Q117	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T**-15LC1R**
		Q303	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T
		Q701	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T
		Q715	0TR387500AA	CHIP 2SC3875S(ALY) BK KEC -
		Q301	0TR127009AA	KTA1270-Y(KTA562TM) KEC TP
		Q302	0TR127009AA	KTA1270-Y(KTA562TM) KEC TP
		Q105	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T**-15LC1R**
		Q106	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T**-15LC1R**
		Q201	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T
		Q304	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T
		Q305	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T
		Q402	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T
		Q702	0TR388109AA	KTC3881 CHIP TP KEC - -
		U405	0TFVI80067A	SI3865BDV(E3) VISHAY R/TP T**-15LC1R**
		U405	0TFVI80036A	SI3861DV VISHAY R/TP TSOP-6**-20LC1R**
		U406	0TF492509AA	SI4925DY TP TEMIC 30V 6.1A
RESISTORs				
		RA701	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 3**-20LC1R**
		RA702	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 3**-20LC1R**

DATE: 2006. 01. 20.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		RA703	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 3**-20LC1R**
		RA704	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 3**-20LC1R**
		RA705	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 3**-20LC1R**
		RA706	0RHZTCZ001D	RCA SMART 22OHM 1/16 W 5% 3**-20LC1R**
		R334	0RH1004D422	1M OHM 1 / 10 W 1% D R/TP
		R335	0RH3902D422	39K OHM 1 / 10 W 1% D R/TP
		R751	0RH3902D422	39K OHM 1 / 10 W 1% D R/TP
		R776	0RX0202K665	20 OHM 2 W 5% SF15
		C740	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R1001	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00
		R1002	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R1005	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00
		R1006	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R1009	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00
		R1010	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R1013	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00
		R1014	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00
		R1017	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00
		R1018	0RH1001D622	1K OHM 1 / 10 W 2012 5.00%
		R1026	0RH3300D622	330 OHM 1 / 10 W 2012 5.00%
		R1027	0RH3300D622	330 OHM 1 / 10 W 2012 5.00%
		R1028	0RH3300D622	330 OHM 1 / 10 W 2012 5.00%
		R1029	0RH3300D622	330 OHM 1 / 10 W 2012 5.00%
		R1043	0RH1003D622	100K OHM 1 / 10 W 2012 5.00**-15LC1R**
		R1047	0RH1003D622	100K OHM 1 / 10 W 2012 5.00**-15LC1R**
		R1048	0RH1801D622	1.8K OHM 1 / 10 W 2012 5.00**-15LC1R**
		R1050	0RH0752D622	75 OHM 1 / 10 W 2012 5.00%
		R1051	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00
		R1052	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R1055	0RH0752D622	75 OHM 1 / 10 W 2012 5.00%
		R1056	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00
		R1057	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R1060	0RH0752D622	75 OHM 1 / 10 W 2012 5.00%
		R1061	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00
		R1062	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R1065	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R107	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R1070	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00**-15LC1R**
		R1071	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%**-15LC1R**
		R1072	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00**-15LC1R**
		R1073	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00**-15LC1R**
		R1074	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%**-15LC1R**
		R1075	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00**-15LC1R**
		R110	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D**-15LC1R**
		R115	0RH0222D622	22 OHM 1 / 10 W 2012 5.00%
		R116	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00
		R117	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R121	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R122	0RH1501D622	1.5K OHM 1 / 10 W 2012 5.00
		R126	0RH1502D622	15K OHM 1 / 10 W 2012 5.00%
		R130	0RH1001D622	1K OHM 1 / 10 W 2012 5.00%**-15LC1R**
		R131	0RH1001D622	1K OHM 1 / 10 W 2012 5.00%**-15LC1R**
		R136	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00**-15LC1R**
		R138	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%**-15LC1R**
		R139	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%**-15LC1R**
		R145	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00**-15LC1R**
		R146	0RH0472D622	47 OHM 1 / 10 W 2012 5.00%**-15LC1R**
		R149	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00
		R151	0RH1001D622	1K OHM 1 / 10 W 2012 5.00%
		R172	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%**-15LC1R**
		R174	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%**-15LC1R**
		R174	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D**-20LC1R**

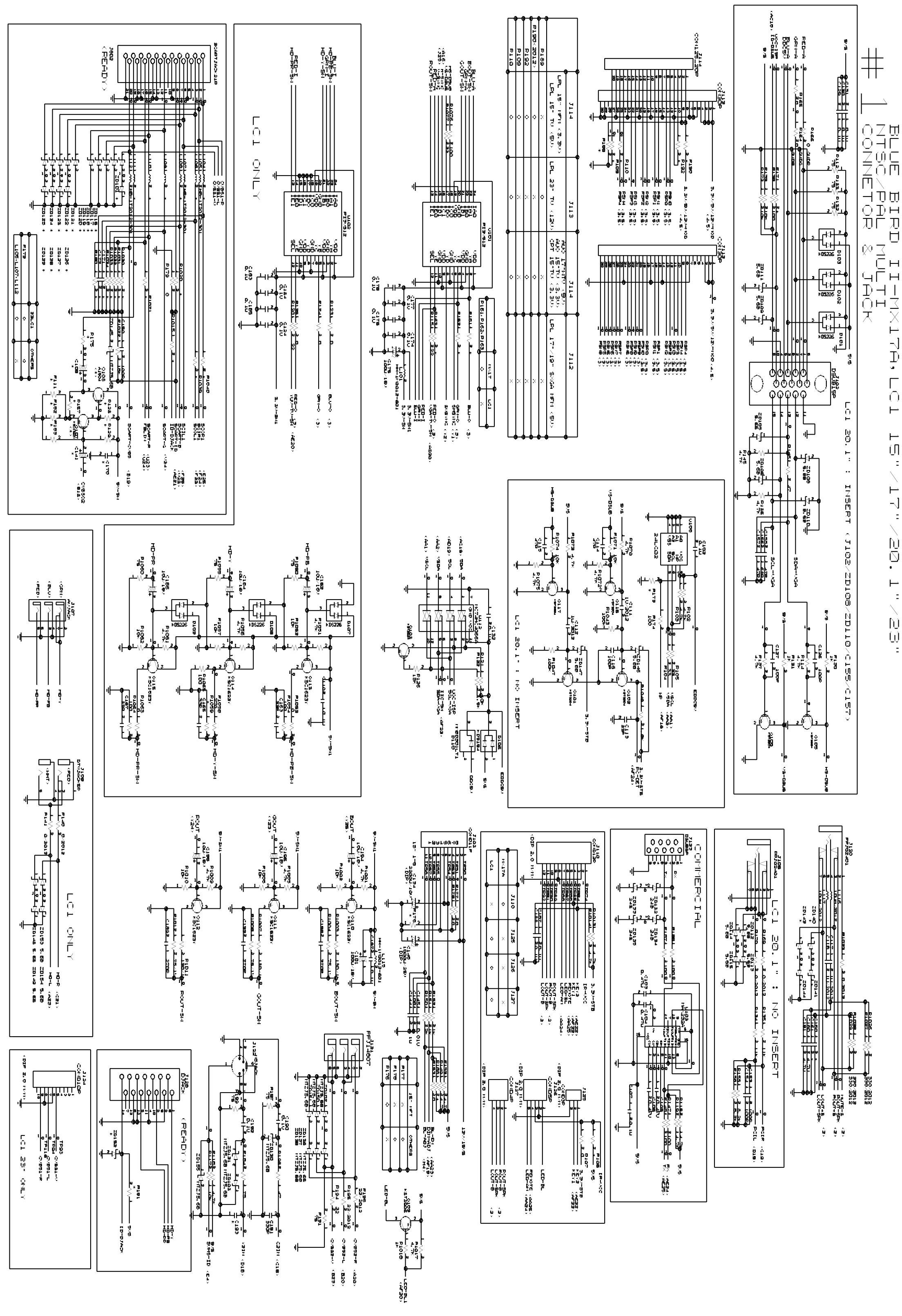
DATE: 2006. 01. 20.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R177	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R178	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R179	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R184	0RH0752D622	75 OHM 1 / 10 W 2012 5.00%
		R190	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D**-15LC1R**
		R191	0RH0752D622	75 OHM 1 / 10 W 2012 5.00%
		R192	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D**-15LC1R**
		R194	0RH0222D622	22 OHM 1 / 10 W 2012 5.00%
		R195	0RH0222D622	22 OHM 1 / 10 W 2012 5.00%
		R196	0RH0222D622	22 OHM 1 / 10 W 2012 5.00%
		R197	0RH0752D622	75 OHM 1 / 10 W 2012 5.00%
		R198	0RH0472D622	47 OHM 1 / 10 W 2012 5.00%
		R199	0RH0752D622	75 OHM 1 / 10 W 2012 5.00%
		R206	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R207	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R217	0RH1502D622	15K OHM 1 / 10 W 2012 5.00%
		R218	0RH4702D622	47K OHM 1 / 10 W 2012 5.00%
		R221	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R222	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R223	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R224	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R225	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R226	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R227	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R248	0RH1201D622	1.2K OHM 1 / 10 W 2012 5.00
		R251	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R3001	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R3002	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R3003	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R3006	0RH0331D622	3.3 OHM 1 / 10 W 2012 5.00%
		R3007	0RH0331D622	3.3 OHM 1 / 10 W 2012 5.00%
		R3008	0RH0331D622	3.3 OHM 1 / 10 W 2012 5.00%
		R3009	0RH0331D622	3.3 OHM 1 / 10 W 2012 5.00%
		R3017	0RH1502D622	15K OHM 1 / 10 W 2012 5.00%
		R3018	0RH1502D622	15K OHM 1 / 10 W 2012 5.00%
		R3031	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00**-15LC1R**
		R304	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R305	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R306	0RH1001D622	1K OHM 1 / 10 W 2012 5.00%
		R307	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R308	0RH1502D622	15K OHM 1 / 10 W 2012 5.00%
		R309	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R310	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R315	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R321	0RH0102D622	10 OHM 1 / 10 W 2012 5.00%
		R322	0RH0102D622	10 OHM 1 / 10 W 2012 5.00%
		R323	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R325	0RH4702D622	47K OHM 1 / 10 W 2012 5.00%
		R327	0RH0102D622	10 OHM 1 / 10 W 2012 5.00%
		R328	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R329	0RH2203D622	220K OHM 1 / 10 W 2012 5.00
		R330	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R333	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00
		R337	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R338	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R339	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R341	0RH1003D622	100K OHM 1 / 10 W 2012 5.00
		R347	0RH8202D622	82K OHM 1 / 10 W 2012 5.00%
		R348	0RH1201D622	1.2K OHM 1 / 10 W 2012 5.00
		R349	0RH0102D622	10 OHM 1 / 10 W 2012 5.00%
		R350	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R352	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%

DATE: 2006. 01. 20.				
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R367	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R369	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R388	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R389	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00
		R391	0RH0331D622	3.3 OHM 1 / 10 W 2012 5.00%
		R392	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R393	0RH4300D622	430 OHM 1 / 10 W 2012 5.00%
		R394	0RH0331D622	3.3 OHM 1 / 10 W 2012 5.00%
		R395	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R396	0RH2201D622	2.2K OHM 1 / 10 W 2012 5.00
		R397	0RH2201D622	2.2K OHM 1 / 10 W 2012 5.00
		R401	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00
		R409	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R413	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R414	0RH4702D622	47K OHM 1 / 10 W 2012 5.00%
		R425	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R426	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R434	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R702	0RH4700D622	470 OHM 1 / 10 W 2012 5.00%
		R705	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R706	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R710	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R715	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R728	0RH1501D622	1.5K OHM 1 / 10 W 2012 5.00
		R740	0RH4702D622	47K OHM 1 / 10 W 2012 5.00%
		R741	0RH4700D622	470 OHM 1 / 10 W 2012 5.00%
		R742	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R750	0RH6802D622	68K OHM 1 / 10 W 2012 5.00%
		R753	0RH1002D622	10K OHM 1 / 10 W 2012 5.00%
		R760	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R761	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R762	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00
		R772	0RH8200D622	820 OHM 1 / 10 W 2012 5.00%
		R775	0RH1000D622	100 OHM 1 / 10 W 2012 5.00%
		R1003	0RJ1300D477	130 OHM 1/10 W 1% 1608 R/TP
		R1004	0RJ0752D477	75 OHM 1/10 W 1% 1608 R/TP
		R1007	0RJ1300D477	130 OHM 1/10 W 1% 1608 R/TP
		R1008	0RJ0752D477	75 OHM 1/10 W 1% 1608 R/TP
		R1011	0RJ1300D477	130 OHM 1/10 W 1% 1608 R/TP
		R1012	0RJ0752D477	75 OHM 1/10 W 1% 1608 R/TP
		R102	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T**-15LC1R**
		R1023	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R103	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T**-15LC1R**
		R104	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP**-15LC1R**
		R105	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP**-15LC1R**
		R1053	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R1054	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R1058	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R1059	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R1063	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R1064	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R1076	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R1077	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R109	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP**-15LC1R**
		R112	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP**-15LC1R**
		R114	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T**-15LC1R**
		R120	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R123	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R124	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R125	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R132	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP**-15LC1R**
		R133	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP**-15LC1R**

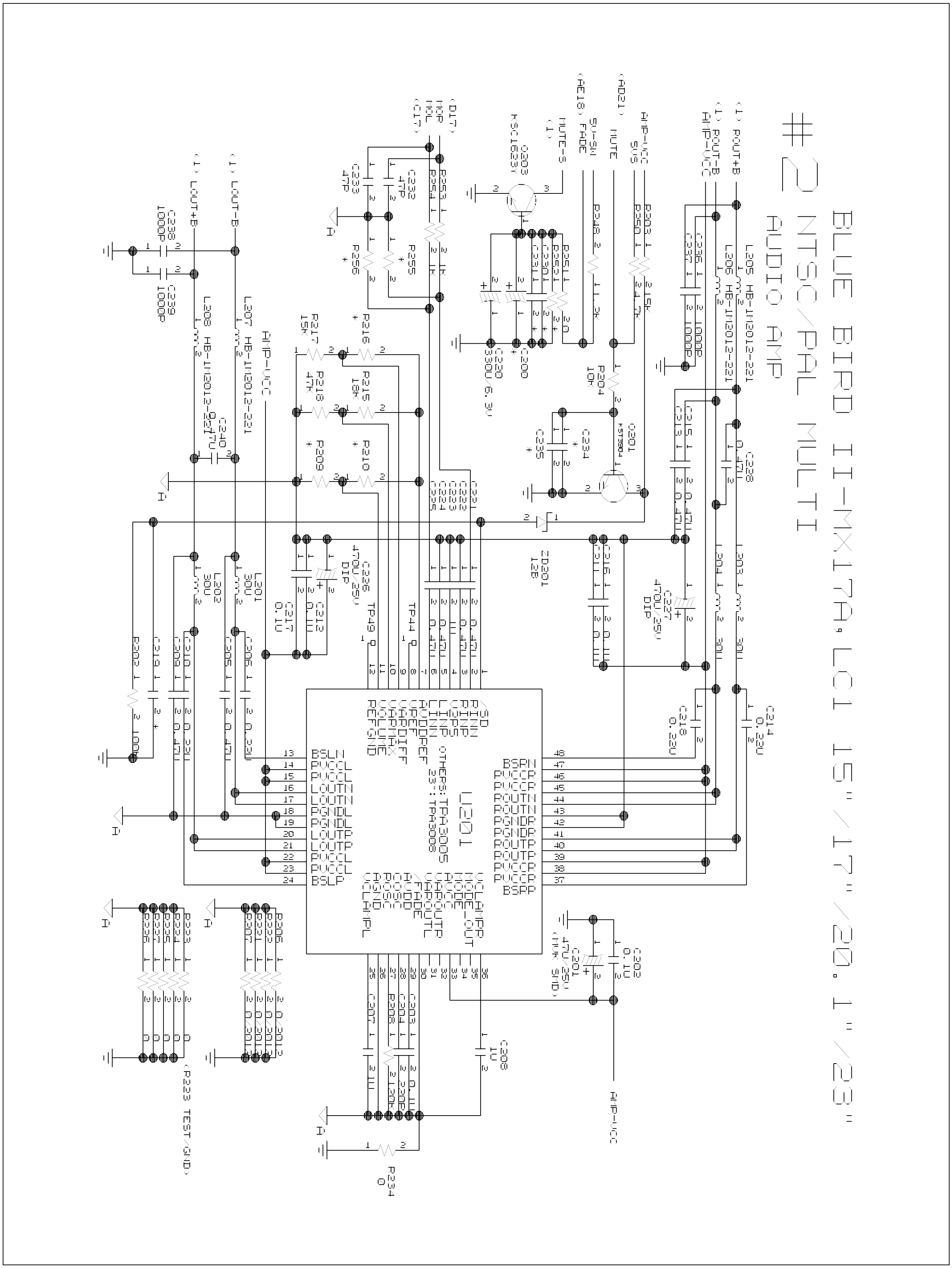
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
				DATE: 2006. 01. 20.
		R134	0RJ1102D677	11K OHM 1/10 W 5% 1608 R/TP**-15LC1R**
		R135	0RJ1102D677	11K OHM 1/10 W 5% 1608 R/TP**-15LC1R**
		R137	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T**-15LC1R**
		R140	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R141	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D
		R150	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R152	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R153	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R155	0RJ8201D677	8.2K OHM 1/10 W 5% 1608 R/T**-15LC1R**
		R156	0RJ8201D677	8.2K OHM 1/10 W 5% 1608 R/T**-15LC1R**
		R159	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R164	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP**-15LC1R**
		R165	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP**-15LC1R**
		R166	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP**-15LC1R**
		R169	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D**-15LC1R**
		R170	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D**-15LC1R**
		R202	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/T
		R203	0RJ1502D677	15K OHM 1/10 W 5% 1608 R/TP
		R204	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R208	0RJ1203D677	120K OHM 1/10 W 5% 1608 R/T
		R215	0RJ1802D677	18K OHM 1/10 W 5% 1608 R/TP
		R234	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R250	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R253	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R254	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R301	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R3010	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R3015	0RJ1502D677	15K OHM 1/10 W 5% 1608 R/TP
		R3016	0RJ1502D677	15K OHM 1/10 W 5% 1608 R/TP
		R302	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R3020	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R3021	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R303	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R312	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R313	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R316	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R317	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R318	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R319	0RJ2002D677	20000 OHM 1/10 W 5% 1608 R/
		R320	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R326	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP**-15LC1R**
		R332	0RJ0682D677	68 OHM 1/10 W 5% 1608 R/TP
		R336	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R342	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R343	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R344	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R351	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R355	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R370	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R372	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R373	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R375	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R376	0RJ3900D677	390 OHM 1/10 W 5% 1608 R/TP
		R377	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R378	0RJ1202D677	12K OHM 1/10 W 5% 1608 R/TP
		R379	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R380	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R382	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R383	0RJ1502D677	15K OHM 1/10 W 5% 1608 R/TP
		R384	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R385	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R386	0RJ1502D677	15K OHM 1/10 W 5% 1608 R/TP

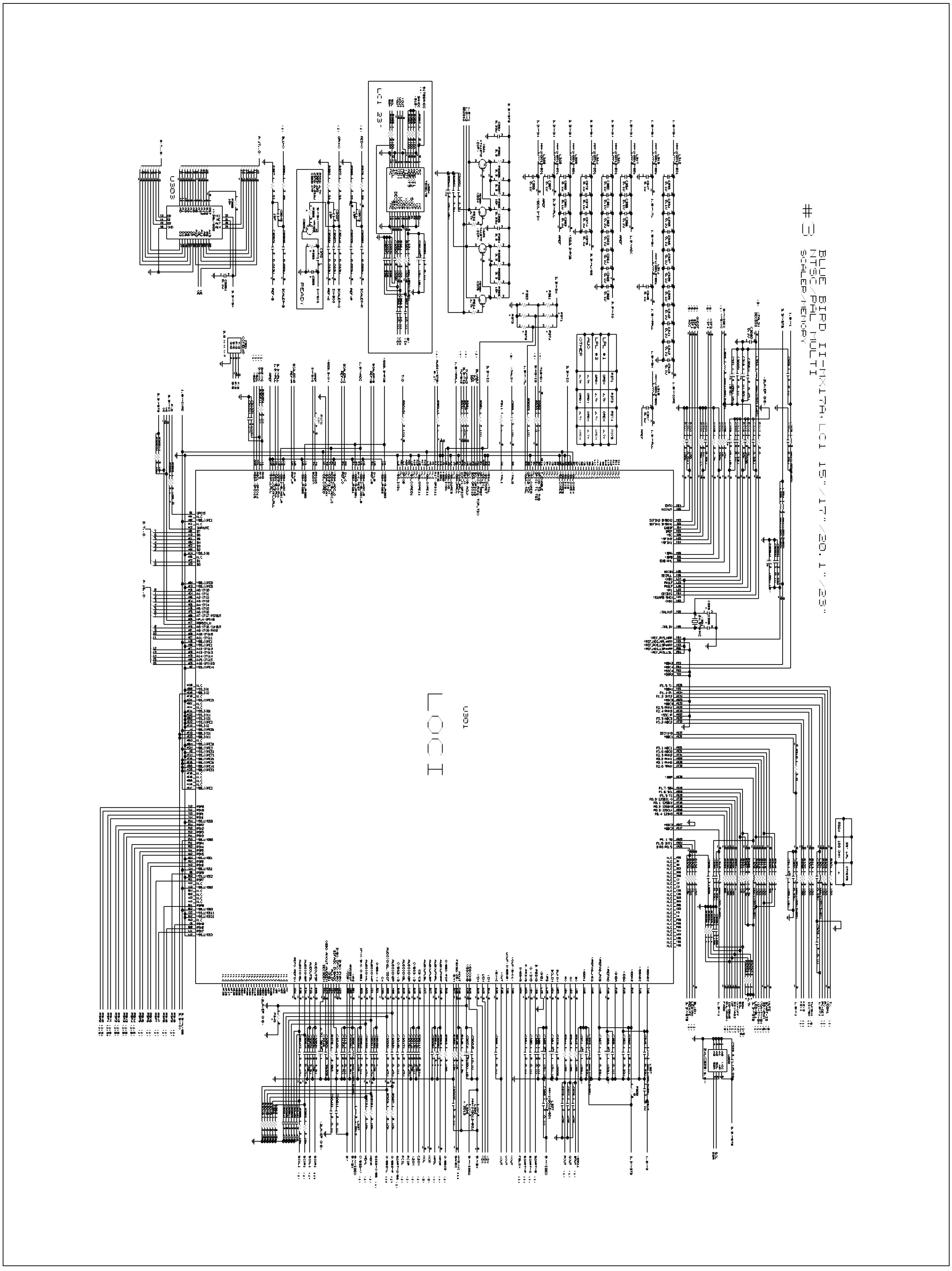
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
				DATE: 2006. 01. 20.
		R387	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R399	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R410	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R411	0RJ5600D677	560 OHM 1/10 W 5% 1608 R/TP
		R417	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP**-15LC1R**
		R418	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP**-15LC1R**
		R533	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R534	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R714	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R720	0RJ1201D677	1200 OHM 1/10 W 5% 1608 R/T
		R729	0RJ4702D677	47000 OHM 1/10 W 5% 1608 R/
		R730	0RH4701D622	4.7K OHM 1 / 10 W 2012 5.00**-20LC1R**
		R731	0RJ9101D677	9.1K OHM 1/10 W 5% 1608 R/T**-20LC1R**
		R732	0RH0000D622	0 OHM 1 / 10 W 2012 5.00% D**-20LC1R**
		R735	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP**-20LC1R**
		R736	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP**-20LC1R**
		R737	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP**-20LC1R**
		R739	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP**-20LC1R**
		R743	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP**-20LC1R**
		R744	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP**-20LC1R**
		R745	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP**-20LC1R**
		R746	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP**-20LC1R**
		R747	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP**-20LC1R**
		R770	0RJ0562D677	56 OHM 1/10 W 5% 1608 R/TP
		R771	0RJ1501D677	1.5K OHM 1/10 W 5% 1608 R/T
		R773	0RJ3000D677	300 OHM 1/10 W 5% 1608 R/TP
		R774	0RJ0682D677	68 OHM 1/10 W 5% 1608 R/TP
OTHERs				
		X301	6202TST003G	HC-49/SM5H KONY 24.576MHZ +
		U303	6620F00017A	CCSD-32T-SM WOOYOUNG 32P PL
		TU701	6700VS0003D	TAEW-G052P LGIT MULTI VS RC
LED&IR BOARD				
		ZD504	0DZ560009CF	MTZJ5.6B TP ROHM-K DO34 0.5
		U501	6712SCA232A	TSOP34838SO1 VISHAY 38KHZ L
		LED551	0DLBE0048AA	BRIGHT LED ELECTRONICS BL-H
		LED552	0DLBE0048AA	BRIGHT LED ELECTRONICS BL-H
		Q551	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T
		R551	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R552	0RJ3001D677	3K OHM 1/10 W 5% 1608 R/TP
		R553	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R554	0RJ3001D677	3K OHM 1/10 W 5% 1608 R/TP
		ZD501	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD502	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD503	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD504	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
		ZD505	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323
CONTROL BOARD				
		C501	0CN1040K949	"0.1UF D 50V 80%,-20% F(Y5V)"
		C504	0CN1040K949	"0.1UF D 50V 80%,-20% F(Y5V)"
		R502	0RN2201F409	2.2K OHM 1/6 W 1.00% TA52
		R503	0RN8200F409	820 1/6W 1% TA52
		R504	0RN1501F409	1.5K OHM 1/6 W 1.00% TA52
		R505	0RN1501F409	1.5K OHM 1/6 W 1.00% TA52
		R507	0RN8200F409	820 1/6W 1% TA52
		R508	0RN2201F409	2.2K OHM 1/6 W 1.00% TA52
		SW501	140-058B	EVQ PB2 05K MATUSHITA NON 1

				DATE: 2006. 01. 20.
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		SW502	140-058B	EVQ PB2 05K MATUSHITA NON 1
		SW503	140-058B	EVQ PB2 05K MATUSHITA NON 1
		SW504	140-058B	EVQ PB2 05K MATUSHITA NON 1
		SW505	140-058B	EVQ PB2 05K MATUSHITA NON 1
		SW506	140-058B	EVQ PB2 05K MATUSHITA NON 1
		SW507	140-058B	EVQ PB2 05K MATUSHITA NON 1
		SW508	140-058B	EVQ PB2 05K MATUSHITA NON 1
		ZD502	0DZ560009CF	MTZJ5.6B TP ROHM-K DO34 0.5
		ZD505	0DZ560009CF	MTZJ5.6B TP ROHM-K DO34 0.5



#1 BLUE BIRD II-MX17A, LC1
NTSC/PAL MULTI
CONNECTOR & JACK
LC1 20.1" : INSERT (J102,ZD108,ZD110,C155,C157)
LC1 ONLY
(READY)
LC1 20.1" : NO INSERT
COMMERCIAL
LC1 23" ONLY

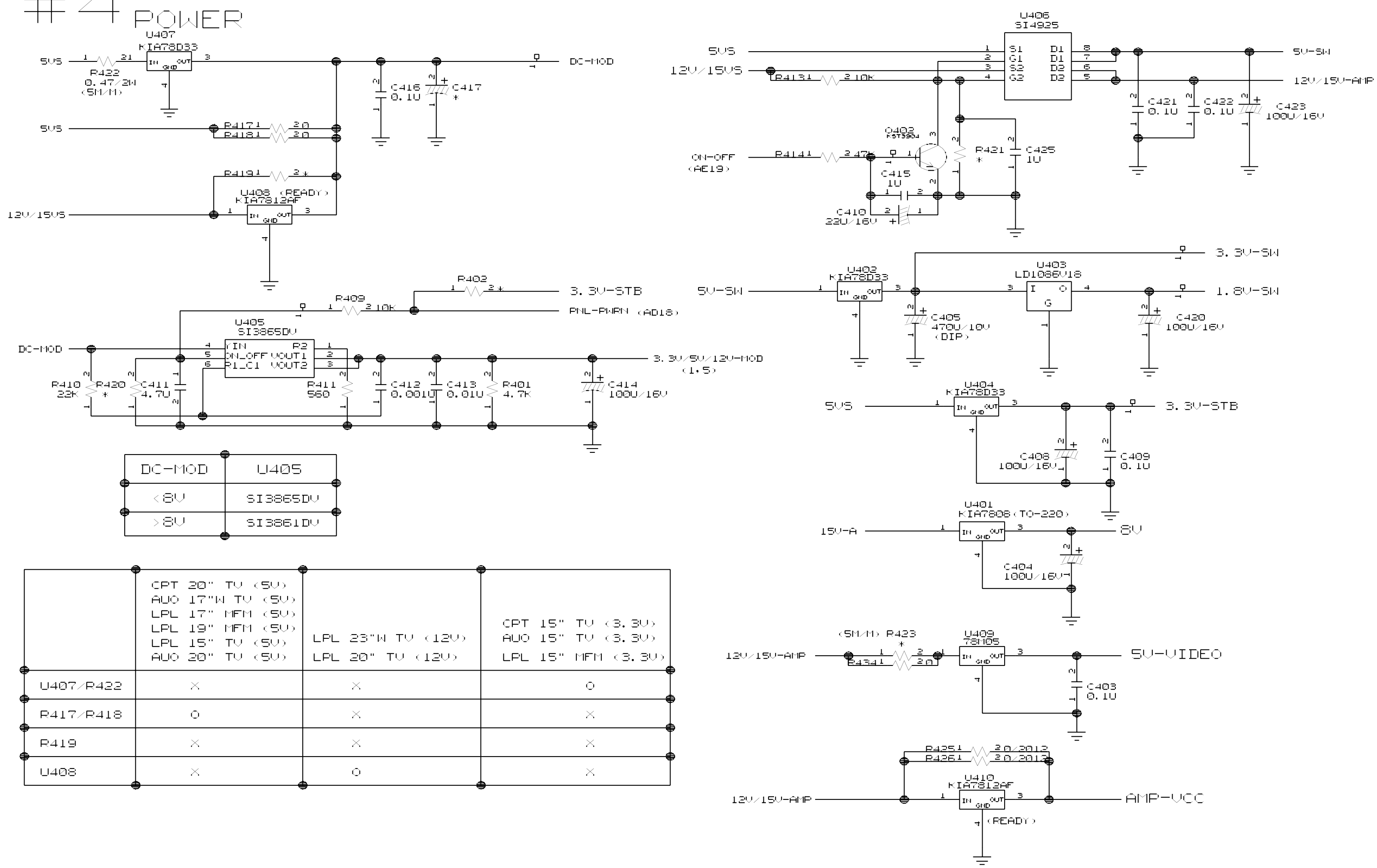

BLUE BIRD II-MX17A, LC1 15"/17"/20.1"/23"
#2 NTSC/PAL MULTI
AUDIO AMP
U201


#3
BLUE BIRD II-MX1TA.LC1 15"/17"/20.1"/23"
NTSC/PAL MULTI
SCALER/MEMORY
U303
U301

BLUE BIRD II-MX17A,LC1 15"/17"/20.1"/23"

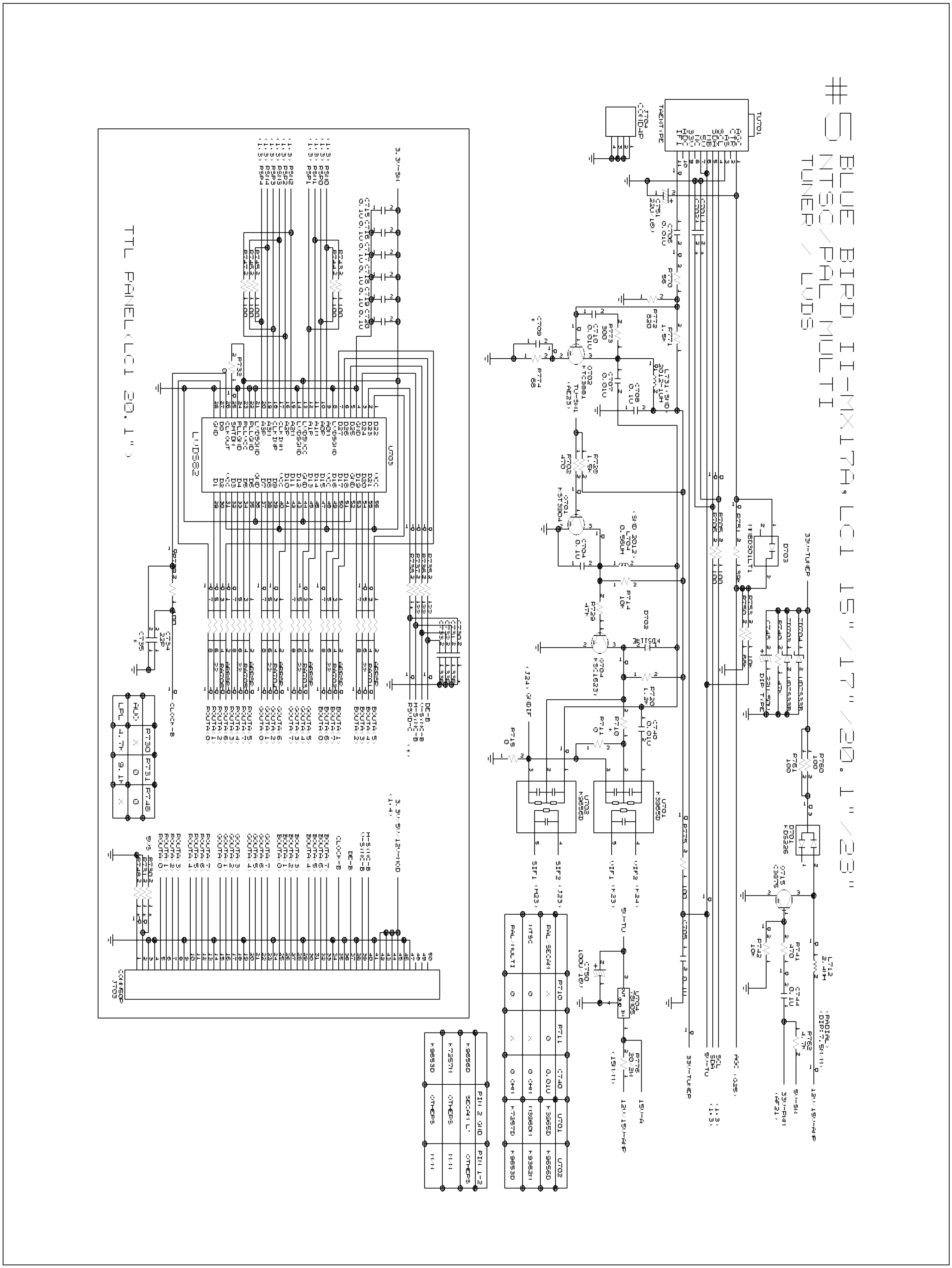
#4 NTSC/PAL MULTI

POWER



DC-MOD	U405
<8V	SI3865DV
>8V	SI3861DV

	CPT 20" TV (5V) AUO 17"W TV (5V) LPL 17" MFM (5V) LPL 19" MFM (5V) LPL 15" TV (5V) AUO 20" TV (5V)	LPL 23"W TV (12V) LPL 20" TV (12V)	CPT 15" TV (3.3V) AUO 15" TV (3.3V) LPL 15" MFM (3.3V)
U407/R422	X	X	O
R417/R418	O	X	X
R419	X	X	X
U408	X	O	X


#5 BLUE BIRD II-MX17A, LC1 15"/17"/20.1"/23"
NTSC/PAL MULTI
TUNER / LVDS
TTL PANEL(LC1 20.1")

LG Electronics Inc.

Jan., 2006
P/NO : 38289S0043T
Printed in Korea